PENCIL POINTS

Volume XII December, 1931 Number 12

Art Endures—Far Too Much

By Wilfred W. Beach

Present-day architects, especially some of the older heads in the profession, have been viewing with more or less concern an apparently growing tolerance toward *all* so-called "Modernistic" design, on the part of many who have heretofore been deemed capable critics. The plain inference of the thorough addicts of the "new school" (some of whom apparently jumble their Modernistic and Futuristic, indiscriminately) is that, prior to their advent, there was produced no modern architecture worthy of mention. It was distinctly so stated in the public press not long ago by one enthusiastic disciple of the ultra-Modernistic.

The idea of such neophytes is, beyond peradventure, that the boards shall be swept clean, for every one of us old-timers has been all wrong—nothing left for us and our work but the city dump. But many of us will not down so easily. We refuse to subscribe to the statement that there was an utter lack of merit in the eclecticism of the architecture of our day, until the designers of the Modernistic appeared to save it. Obviously, some architecture of all times has been good, whatever its style, and much has been bad, quite regardless of the viewpoint or predilections of any particular critic. A well-trained designer, possessed of good taste, is generally to be depended upon to produce good work; but, unfortunately, there has ever been an overplus of mediocre designers and their products.

In some localities, the jamming of the entrances to the Modernistic camp closely resembles a stampede. This is readily observable by a cursory glance through any current architectural or art magazine. From some of the photographs of accepted design and finished construction, one is led to suppose that the best things produced by the generation of architects just past were the roof structures of ammonia-brine plants.

All of which tends to be most disconcerting to those of us who have been so sweepingly condemned as adherents of the old school. Perhaps we might better withstand the recurrent shocks produced by such pictures if the publishers' competent critics were to elucidate, for the benefit of tyros in the "new art," just which of the illustrations are supposed to reflect good design and which are presumed to be the result of seismic disturbances, or due to an excessive denatured-alcohol content in the designer's hooch—to show the reader what not to do. Lacking authoritative criterion, the said tyro is so much at sea that, like any of his half-baked ilk, he is as likely to copy the bad as the good. Thus mediocrity spawns and persists adown the ages.

But there is for us a modicum of solace in the fact that architecture is not the only art to fall victim to this modern plague. We find it in music, in painting, in drama, and even in literature. The latter was evidenced, according to several high-class literati, in the award of a Nobel prize to a certain American writer.

Now, though "Art endures," it is characteristic of those of its disciples who haven't time for history, and who are too lazy to seek to acquire the fundamentals of the art they propose to debase, to flout its historical precedents and to go merrily along their individual ways, much as did our American savage and his prototypes of earlier centuries. This "Age of Jazz," from which it is to be hoped that we are emerging (a severely chastened people), was peculiarly adapted to the promulgation of the crass and the crude in all art. *Hoi polloi* had money to spend, who never spent before, and they spent it, as has been said, "like drunken sailors," and with a total lack of discrimination. Seemingly, whatever was odd enough or vile enough to attract attention would sell.

Hence, why take time for diligent study when nothing better than mediocrity was demanded? Why take a lifetime to study music when all one had to do was to buy a saxophone on easy payments and join the union? Why study to be a writer when the premiums offered for the solution of childish "puzzles" or the revealing of one's intimate experiences (if sufficiently salacious) netted far better return for the effort? Why, indeed?

Then, why suppose that architecture might escape? True, many of the modern concepts in both architecture and painting would look as well upside down or reposing on either flank, as in the posture originally intended (if there *was* a definite intent), but why blame little things like that on the designer? He got away with it, didn't he? In what else lies success?

Those of us who have lived through the revivals of "Queen Anne," "The Colonial," "The Mansard," the banks and Christian Science churches copied from Greek and Roman temples, the pseudo-this and the pseudo-that, will, mayhap, survive this stifling flood of "The Modernistic." The thing in it that is most to be deplored is the woeful lack of a "Voice crying in the wilderness" to point out to the really serious student of architecture, with any degree of authority, just what in it is good and what is bad.

Perhaps, there be too few of us who really know. The critic who is always dependable is as rare in architecture as in any other line of human endeavor. And the average architect is too prone to offer adverse criticism and too apt to be overly caustic in it. A typist in the office of a New York architect once asked the writer if "rotten" was an architectural term, adding that she had observed that architects invariably used it when speaking of the work of other architects.

Unanimity in appreciation of architectural achievement is not, of course, to be hoped for. This is especially true, always, in the case of current creations. They must stand the test of time. (Fortunately for the good of our profession, much of what is now being produced will not be called upon to endure.) Meanwhile, we may, at least, offer a word of warning to the younger generation. Study to *know* as well as to *do*. Learn to discriminate. Nothing is good, or bad, solely because it is called "Modernistic," for the same reason that calling a thing "Gothic" or "Classic" never made it good. It had to possess excellence in itself and as a logical part of a good composition. Nomenclature couldn't add to nor detract from it.

The men who are and have been producing the best of present-day design in architecture are, almost to a man, those whose training has been sound and who have not been easily led astray by false prophets. In general, their work is good. Call some of it "Modernistic" if you like, but it is the product of educated brains in the heads of men who have not gone beyond the realm of common sense in their designs.

"Modernism" in art is not so new as some of its devotees appear to think, nor is it in any sense fundamentally American, except, perhaps, in its application to skyscrapers. It came in, in Central Europe, prior to the year 1900, and was plodding along, making its way, following the universal law of the survival of the fittest. We were in a fair way presently to absorb the best of it in this country just about the time that everything was upset by the World's titanic conflict. That over, there was ushered in what was, possibly, the greatest aggregate building program the world has known. Designers were turned out utterly unfinished and much of what they did "shrieks to High Heaven."

We will live down the bad. "Art endures."

But, when one stops to give it thought, it is odd that, with all our self-appreciation, we should permit our nation to be years behind Europe, not only in developing "The Modernistic," but in casting its most flagrant atrocities into the dump of human progress where they rightfully belong. Oddly, too, it has remained for a lay-person to call our attention to this, our remissness. One finds it in an article by Alexandra Kropotkin* in a popular magazine.

Says this writer, "Some of the most hideous objects ever created by human artifice have been for sale for quite a few years now in the Paris shops. 'Modern Art' has been the term used to designate these monstrosities. Pictures of frenzied geometry tangled with grotesque, livid faces have been hanging on nightmare walls above weird-shaped armchairs in which only a double-jointed robot could be comfortable. And the printed materials for hangings and coverings—what Welsh rabbit dreams they have been!

"Have been! *That* is the interesting point. For all this ultra-modern has now suddenly been scrapped by several of the largest stores in Paris. The public, say the directors of these stores, has simply snubbed modern art right off the market. This struck me as interesting from the American angle, because, while the demand for modernistic art has been some time on the wane in France, over here it seems to be a growing fashion. The director of a famous Paris department store has just thrown out his entire stock of modernistic furnishings. In explaining, he went to the root of the matter.

" 'Modern art has never been sincere,' said he. 'It was produced, for the most part, by artists who wouldn't take the trouble to learn how to draw, and by designers who didn't know the fundamental rules of design. They got away with murder.' "

Evidently, one woman can hit a nail on its head. "Art" has been insincere, in Paris, as well as in the United States. Unfortunately, it is not so easy to scrap a few buildings as to dispose of the contents of a department store. Quite regardless of their attributes, good or bad, we must live with them for a while. One cannot forecast when the reported revulsion in France will be duplicated in the United States, but it offers food for thought. If our profession is not learning to discriminate, its designers had best be taken in hand and forced to do so, before a long-suffering public arises in its might and administers a deserved rebuke. We need the discrimination that will teach us to know what should endure and what should be treated as ephemeral. Fads may have their places in show-window and billboard architecture but are distinctly inappropriate to more monumental design. Some of our new accordion-pleated fronts may not class as "frozen music" by the standards of our progeny.

Proper discrimination—educated discrimination—is essential in order that that which is not to endure may be descried and condemned before the public has squandered good money in rendering it into supposedly permanent mediums. None but the knowing should dare experiment. And it seems quite possible that the work now in process on Chicago's lake-front is a most daring experiment. We can but hope that the dependable critic of 1950 will regard the completed buildings of the Exposition of 1933 as flatteringly as do we, for the most part, their predecessors of 1893.

Much has been said about the tremendous impetus exerted by every great exposition, beginning with that of 1876, upon the mechanics and arts of the era immediately following. It is earnestly hoped that the majority of the members of our profession who are to carry on after 1933 will, by that time, have acquired that much-needed discrimination now so painfully conspicuous by its rarity.

"Art endures."

But, just at present, Art appears to be seriously ill from being forced to endure altogether too much.

Whither do we trend?

*"*To the Ladies*" in* Liberty *of March 24, 1931.*

Design in Modern Architecture

12—The Effect on Architecture of the Modern Movements in Painting

By John F. Harbeson

"*Persons who would not pretend to grasp without study the principles of modern science, still demand that art be sufficiently lucid to be comprehended at once by the untutored mind.*"—WILLARD HUNTINGTON WRIGHT — "*Modern Painting.*"

"*Broadly speaking, we are changing from the 'perfections' of Impressionism to the 'imperfections' of Post-Impressionism; from the achievements of a school, a movement, that has done the best it could, to the 'attempts,' the 'experiments,' the 'gropings,' of new men along new lines.*"—ARTHUR JEROME EDDY—"*Cubists and Post-Impressionism.*"

Painting, sculpture, and architecture, in spite of their differences, have much in common. They each express the civilization of the people who produce them—they are the result of that civilization, and become its most potent records. In earlier, less complicated times, men were able in several of them: Raphael was architect as well as painter; Michelangelo, painter, sculptor, architect, as well as poet; Leonardo, painter, sculptor, engineer. The arts have always affected one another—and do today. A Romantic movement in painting is accompanied, or followed, by a Romantic movement in sculpture and in architecture.

The writings of Rousseau, of Sir Walter Scott, the painting of Turner, and the architecture of the Gothic revival are all expressions of the same influences at work in man. And severe academicism in painting is contemporary with, or followed by, academic movements in the other arts. Radicalism and a breaking away from tradition may show first in one of the arts, but it is never long before similar symptoms appear in the others.

New movements, experimentations, are easily essayed in painting because of the simplicity of the means used, and consequently show quickly. Sculpture and architecture, done in heavier and more costly materials, lag behind. Few clients will entrust funds set aside for a building they expect to endure to young architects, especially if they be independent or daring of thought. But a canvas and paints can be had for a few dollars—and the canvas can be used a second time. Small wonder then if new movements show more quickly in painting than in architecture.

And so when we see in painting the work of the cubist, of the futurist, the synchronist and of other recent movements, we must realize several things: first, that these movements are expressions of contemporary life and will be so considered by history, and second, that the architecture which is an expression of this same life will undoubtedly have some examples showing affinities with such movements. We have already seen expressions in modern sculpture similar to such movements in painting. It would be strange if architecture, too, had not similar expressions, similar experimentations.

"LES DEUX JOUERS DE CARTES," BY CÉZANNE

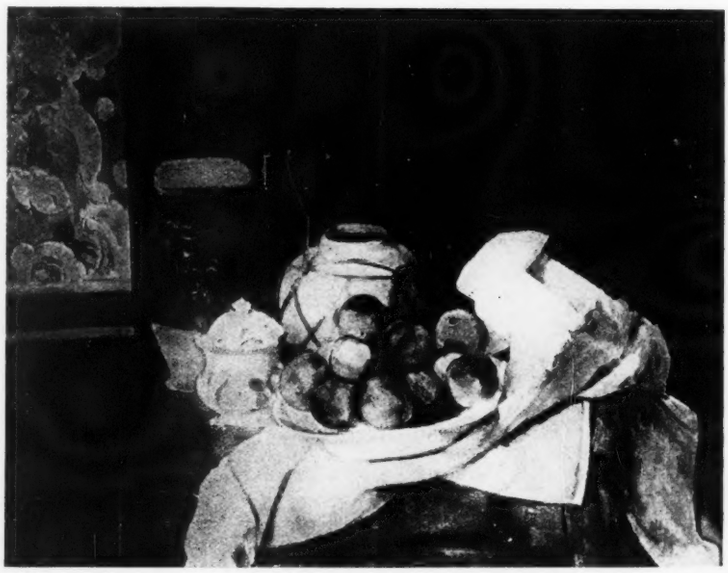
One of the compositions of card players by Cézanne, who made many paintings on this theme. "The exact reproduction of nature in any of its manifestations never held him for a moment. He saw its eternal aspect aside from its accidental visages caused by fluctuating lights. In this he was diametrically opposed to the Impressionists who recorded only nature's temporary phases. They captured and set down its atmosphere and were satisfied. Cézanne, regarding its atmosphere as an ephemerality, portrayed the lasting force of light."—Willard Huntington Wright.

We often speak of a breaking with traditions. But all art is part of a continuous evolution. Examining only the details, it may seem a succession of separate movements, each a protest against or reaction from the accepted principles of the antecedent movement, rather than a growth from it. But on looking further we find that each expression of art, no matter how greatly it differs, yet

From "Cézanne," by Tristan L. Klingor

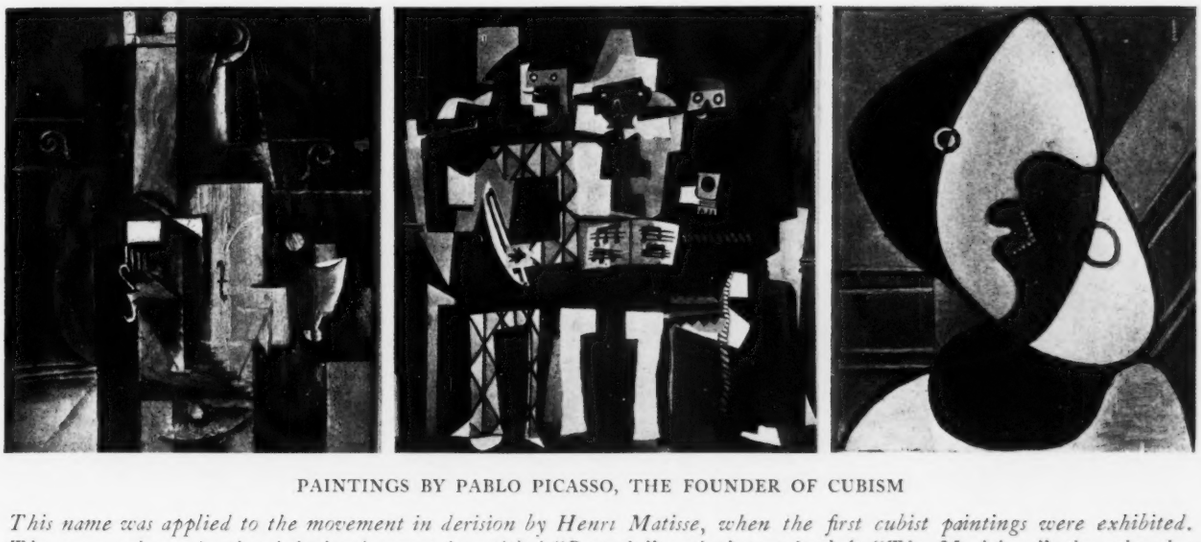
AT LEFT, "NUDES"; AT RIGHT, "PORTRAIT OF CHOQUET," BY CÉZANNE

Though his work now hangs in the Louvre (and in the Metropolitan Museum in New York) and is accepted by all critics as fine painting, he and Gauguin and Van Gogh were at one time ridiculed as the "Fauves," or wild men. It is interesting to remember that ridicule greeted the early works of Corot, of Millet, and of Courbet; that Whistler was roused by Ruskin's defamatory criticism to a suit in the law-courts, and that Turner's work caused a contemporary critic to print: "they are produced as if by throwing handfuls of white and blue and red at the canvas, letting what chanced to stick, stick, and then shadowing in some forms to make the appearance of a picture."



AT LEFT, A LANDSCAPE, "A COURT IN THE VILLAGE AUVERS"; AT RIGHT, STILL LIFE, "APPLES," BY PAUL CÉZANNE, 1839-1906

Cézanne is considered as the founder of the contemporary movements in painting, the one who definitely turned its direction away from the realism of Impressionism. In his paintings the solid quality of the painting is evident, though in reproduction the color is lost, and it is in the composition, in color, that the great value of Cézanne's work lies. He was not interested in outlines, and hence took liberties in drawing the face or figure or natural objects. "The subjective solidity of his work was brought about by the use of color, whose emotional possibilities he had penetrated. His work is composed of minute chromatic planes which, by their complete adaptation to a given position in space, produced the intensest form—form with him was the result of the plastic employment of color. He believed that a mere imitation of reality, no matter how interesting, could never set in motion the wheels of æsthetic ecstasy; and so he translated nature into a subjective impression of reality by expressing it in a complete order which in itself was dynamic. To Cézanne more than anybody is due the arrest of painting from its pursuit of the visual impression in favor of constructive designing in paint. He did not consciously aim at the effects of what is now known as "cubism," but he prepared the way for it by insisting upon the essential form or volume of objects in disregard of minor inflections of contour. He brought back into painting the conditions of depth, weight, and solidity which the aims of Impressionism had comparatively ignored."—Charles Marriot, "Modern Movements in Painting."



PAINTINGS BY PABLO PICASSO, THE FOUNDER OF CUBISM

This name was applied to the movement in derision by Henri Matisse, when the first cubist paintings were exhibited. The canvas shown in the right-hand corner is entitled "Portrait," and that at its left "The Musicians," the other has been listed, simply, as "composition." They were painted between 1921 and 1929. Marius de Zayas, a pupil, tells us that Picasso "receives a direct impression from external nature; he analyzes, develops and translates it in his own particular style, intending that his picture should be the pictorial equivalent of the emotion produced by nature. Instead of the physical manifestation he seeks the psychic one, and this psychical manifestation inspires him with geometrical sensations. It is not his purpose to perpetuate on canvas an aspect of the external world, but to represent with the brush the impression he has directly received from nature, synthesized by his fantasy." These are compositions in two dimensions very much as is an architectural "frontispiece" and subject to the same laws of composition.

Picabia, another cubist, has said: "What is art? Is it copying faithfully a person's face? A landscape? No, that is machinery. Painting Nature as she is, is not art, it is mechanical genius. The old masters turned out by hand the most perfect models, the most faithful copies of what they saw. That all their paintings are not alike is due to the fact that no two men see the same things in the same way. Those old masters were faithful depicters of the actual, but I do not call that art today, because we have outgrown it. Creating a picture without models is art. Those old masters filled a place in our life that cannot be filled otherwise, but we have outgrown them. It is a most excellent thing to keep their paintings in the art museums—their paintings are to us what the alphabet is to the child. We moderns express the spirit of modern time . . . and we express it on canvas the way the great composers express it in their music."

has its roots in the art which preceded it. And it contains in itself the seeds of the art forms to follow. Tradition has its effect, its importance, whether we wish it or not.

Up to the beginning of the last century, the history of painting is a history of man's attempt to express on a plane surface of two dimensions what takes place in nature in three dimensions. To be sure there was an effort at composition in all eras, sometimes a desire for decorative effect, sometimes a striving after brilliant color effects, but the main effort, which was a continuous one, was the effort of the artist to attain to truth in the representation of nature.

"If we regard painting as a whole, the imitation of nature may be established as its most distinctive characteristic"—until recent times, for when this goal had been attained successfully painters naturally turned their efforts in other directions.

The Egyptian artist succeeded in expressing truth in contour, the silhouette of things in nature, and with emphasis on what is characteristic. The Greek made a study of foreshortening of the human figure and took the first steps toward perspective projection. The Romans, to judge by the wall paintings at Pompeii, had constructed a complete science of perspective. How completely scientific it was we do not know, for perspective was often used for decorative purposes and with astounding freedom and playfulness, but there are evidences of a real understanding of its principles.

The fall of the Roman Empire, and the invasions of the northern barbarians stopped the progress of art for a time—in fact the skill and knowledge that had been attained were almost completely lost. The works of the early Christian artists were crude and naive—primitive art of a subject people and later of the race formed by the mixture of barbarian and Roman citizen.

Again the artist made efforts toward the representation of truth in nature. After the millennial year, when people were less preoccupied with the fear of the end of the world, more and more people were interested in art, and progress was more rapid. Classical knowledge in literature, in art, was again brought to light: there was a "revival of learning." In the fifteenth century a complete science of linear perspective was developed; painters succeeded in fully mastering the representation of the third dimension, as expressed by drawing in line.

With Rembrandt there was a change in direction. It was the appearance of objects in nature that was important, not reality, an interest in what could be called aerial perspective. Until then painting had rep-

resented things in a painting as if they were looked at in turn, and a clear picture of each was formed. With Rembrandt there was an attempt to take in the whole field of vision at a glance, ignoring the special objects, but forming a summary representation of the whole, or of focusing on a single area in the field of vision, allowing the surrounding objects to group themselves in less distinct generalizations.

Later painters continued to paint different aspects of nature, as appealed to their several abilities, nationalities, and preferences. But the problem of the representation of truth in space, which painters had been attempting since painting began, had been solved. By the beginning of the nineteenth century a gifted painter with a proper training could paint anything. Ingres drew perfectly; students could draw *differently*, none could hope to draw *better*.

Art academies began to regulate their training: art became formalized, academic, a thing of routine. At this time there was a revolt, a change in the aim of artists. Constable, and after him, Turner, had experimented in the expression of light.

Scientific experiments by physicists illustrated properties of color and light hitherto unsuspected and

"IN THE PARK," BY CLAUDE MONET (1840-1926), LUXEMBOURG MUSEUM

Monet started painting as one of the Barbizon group, but coming under the influence of Constable and Turner on a visit to England he developed the methods which entitle him to be called the "Father of Impressionism." "He carried the pitch of painting into a higher key than ever before, eliminated all browns from the palette, and employed only pure colors laid side by side in small broken touches to suggest the vibration of light. Above all, Monet insists on consistency of illumination at particular hours of the day or season and with this object he early adopted the habit of painting the same subject under different conditions of light." This is one of his earlier, less atmospheric works.

painters made use of the consequences of these experiments. The result was what is now known as the Impressionist school — the school preoccupied with the representation of atmospheric effects. New techniques of painting were developed. Color, instead of being mixed on the palette, was placed on the canvas in small dabs of contrasting color, the mixing being done by the eye of the spectator. Impressionism, an intensive culture in effects of light and atmosphere, lost sight of the higher aims of painting—design, composition, the *mental conception* as contrasted with the *visual impression*.

Naturally there was a reaction. Cézanne is the great figure of this reaction, a reaction toward design, toward formal organization, simplification. The older art was analytic, the new synthetic. The older art was imitation of nature, the new an organization of forms that have originated in nature, but passed through the mind. It is not unlike two-dimensional architectural composition—a surface treatment or composition of a façade. It is for this reason that so many of the modern painters have been influenced by primitive negro sculpture, which is the work of slightly synthetic artists, working without models, "and whose visions encompassed only certain traits of

STILL LIFE AND "ODALISQUE," BY HENRI MATISSE, LUXEMBOURG MUSEUM

Matisse is the most known living painter of the modern French school. Inspired by Gauguin rather than by Cézanne, and by Persian miniatures and other Eastern art, his work has a decorative simplicity. His painting is usually marked by flat patches of color on a light arabesque drawing. He has a strong understanding of the use of color to excite emotion: color is unfortunately lost in reproduction. It was quite possible to judge of paintings up to the 19th century by photographs, but very difficult since then. Up to that time painting was largely a matter of drawing: color was filled in in the areas. Since that time color has been used very differently—to compose with—and consequently a photograph loses all of this part of a picture's quality.

THE CHANGING LANDSCAPE, AT LEFT, "THE RED ROOFS," BY CAMILLE PISSARRO (1830-1903), AN IMPRESSIONIST
AT RIGHT, A LANDSCAPE BY MAURICE DE VLAMINCK, A CONTEMPORARY BELGIAN PAINTER

Pissarro laid small touches of pure color side by side on his canvases, and depended on the eye to effect mingling of the colors: he believed this superior to actual blending on the palette, for purposes of brilliance and intensity. Vlaminck, following Van Gogh, relies on the direct action of pigment—"juicy color"—for his emotional effects. His drawing is simplified, his design emphatic; these result from a free and impulsive handling of the medium. These paintings are in the Luxembourg Museum.

form, which, when expressed, became not composed but balanced, not imitative, but abstract."

Cézanne restored the third dimension as a factor of design in painting, rebelling against the disintegration of form which was the logical consequence of the impressionist analytical treatment of light. This concentration upon depth is what afterwards hardened into cubism. Cézanne had a remarkable gift for composition, for composition in color. His work has influenced all later painting.

While Cézanne was thus starting the new art, his contemporary, Renoir, was the consummation of the Impressionist school. A thoroughly trained painter, with perfect technical facility, his genius was for linear rhythm, while Cézanne was interested in plastic volume.

Starting from a chance remark of Cézanne, a group of young painters began what is now known as Cubism, a painting with elements borrowed not from the realities of vision, but from the realities of knowledge. The geometrical lines result from the attempt to paint only the essential realities of things, omitting objective realities and story-telling qualities. It is a return to the use of elemental drawing; these painters

THE PAINTING OF TREES. AT LEFT, "THE BENT TREE," BY J. B. C. COROT (1796-1875)
AT RIGHT, "ENVIRONS OF ST. MAXIMIN," BY ANDRÉ DERAIN (CONTEMPORARY)

Corot was a romantic classicist, his work shows firmness of design, depth of sentiment and attention to atmospheric effect. Derain's landscape is typical of the more practicable general aims of Post-Impressionism. "They might be defined as extreme simplification in drawing, rhythmical and emphatic design; disregard of light and shade for the purpose of realistic modeling; insistence on the third dimension of space as a factor in design; frank exposure of the substance of paint. With these aims are combined the æsthetic harvest of Impressionism represented by 'the greatest possible vibrancy and luminosity of color, obtained by the juxtaposition of bright pigment in small separate touches.'"—Charles Marris.

LEFT, "THE BALCONY," BY EDOUARD MANET (1822-83) IN THE LUXEMBOURG GALLERY

RIGHT, "JUPITER AND THETIS," BY J. A. D. INGRES (1780-1867)

Gifted with astonishing technical dexterity, Manet, with an insistence on the æsthetic rather than the illustrative side of painting, prepared for much of the modern theory of painting. His paintings present an instantaneous image which is at once flat and motionless. He used abbreviations and economies, simplification of light—generalizations of nature—for emphasizing the spontaneity of vision. He sensed the ornamental value of color, color however that today seems gray beside the vivid colors now used.

The Classic, academic, painting at its best. Ingres went to the Greeks for inspiration, as did the architects of his day; his work is architectonic in quality. He was an incomparable draftsman but, like all great artists, selected from and simplified what he saw. His ability in pure drawing was no doubt responsible for his instinct for silhouette; parts of his work often give the impression of the engravings of Percier and Fontaine. Although an academician his work had a profound influence on the great painters of the succeeding century.

stop with planes and lines and do not go on to model the surfaces of things they paint; and objects are often reduced to symbols or abstractions. Many of the compositions look somewhat like the inlaid wood decorations in Louis XV furniture. Cubism has already passed and, beyond giving a new inspiration to painters, has had little effect on painting in general.

The cubists attempted to express motion by showing in one canvas the consecutive positions of a moving body, and they also developed a theory of simultaneity

AT LEFT, BAIGNEUSES, 1855; AT RIGHT, BAIGNEUSES, 1902, BY AUGUSTE RENOIR (1841-1919)

An interesting comparison of the earlier and the later manner of one of the greatest of modern painters on the same composition. By an intelligent employment of that quality of luminosity by which sunlight disperses matter by obscuring some points and accentuating others, he created his own light; he made of it a vital form-creating element. He painted as if the composition were lighted from where the spectator looks at it. "Renoir's transcendent competency was the result of academic training . . . No untrained man, no matter how high his natural gifts, has yet been able to record adequately his feelings. All the records of past achievement go to show that no person who has not been profoundly educated in the purely objective (not utilitarian) forms and in the abstract qualities of painting, such as anatomy and technique, has succeeded in conceiving an artistic organization. The school has never dwarfed genius, nor is it probable it ever will. To the contrary it assists the truly great man in his self-fulfillment and weeds out the mediocre man."—Wright.

"DOG AND PERSON IN MOVEMENT," BY BALLA

Motion as expressed by the Futurists. Note the successive positions of the feet of both person and dog, and of the dog's head and tail and chain.

—the combined presentation of a number of aspects of the same object from many different angles. Such paintings, like symphonic music, require some response from, and some study by, the spectator, to be appreciated.

All of the modern painters take liberties with nature. They distort human forms, falsify perspective, to the ends of composition or design. Most of those who paint distorted forms have shown that this distortion is the result of intent and not of carelessness. It was with Matisse there began the conscious process of making form arbitrary, of bending it to the personal requirements of expression. Matisse has proved that he can be an impeccable draftsman in an academic sense.

There have always been distortions of the human body in art. The Greeks and Chinese practiced deformations to beautify the relative proportions of the body, but the distortions were small. As an instance, Lysippus in his sculpture habitually made the head one-eighth the height of the body, though he probably knew it did not measure that. This tendency in the other arts brings them closer, however, to architectural design, which has not absolute proportions, but only relative ones, depending upon the aspect of one element when placed with another. Some may not admit that a figure will look well with the neck elongated, but that is a matter of education and taste. *De gustibus non est disputandem.*

"DANCE AT THE SPRING," BY PICABIA

Motion as expressed by the Cubists. One figure is "distinguishable at first glance; the second is not so easily discerned, while the spring is more obscure, though plain enough after a little study."

Other painters, known as Futurists, have attempted to put on the canvas, "not an instant or a moment of immobility of the universal force that surrounds us, but *the sensation of that force itself*. Due to the persistence of an image on the retina, objects in movement multiply, change form and follow like vibrations in space. A running horse has not four legs, but twenty, and their movements are triangular." The theory is interesting, it is based on recognized optical conditions, and no doubt the experiments will have their value on the general stream of painting, rather than for any particular canvases. The Futurists* are the anarchists of the art and literary world. The Cubists and other moderns all *reason from* the past, the Futurists would *break with* the past entirely. Unfortunately for their theory, we cannot rid ourselves of the past.

"COSMIC SYNCHRONISM," BY MORGAN RUSSELL

To the Synchronist color becomes the generating function; painting being the art of color, any quality of a picture not expressed by color is not painting. "The relation of special emotions and of the emotions of density and transparency which we wish to express dictates to us the colors most capable of transmitting these sensations to the spectator—so that the spectator may be drawn into the center of the picture by tactile sensation not merely by intellectual processes" as heretofore.

While definitely building on what has gone before in painting, Synchronism, which has been called "the last advance in modern methods," will seem at first sight to be a more complete break with tradition than any of the other movements, for in it art is composition in richly harmonious color, arranged and organized as musical compositions are organized with the notes of the scale. There is an attempt to express emotion with this color harmony, without the use of any forms in nature. It is purely abstract painting.

Every movement in art starts as a revolution—a fight against the accepted "classicism of the day."

* "*Cubists and Post-Impressionism.*"—A. J. Eddy.

Those who revolt are looked down upon, reviled, called madmen—but coming as they do when a movement has lost its vitality, when second-rate men are merely copying what has been done before, the revolution is inevitable and at last successful.

But those who are now accepted—the first prophets have usually died before this recognition—are in turn enthroned and have followers, who blindly accept the new dictates. The art that was yesterday thought insane is today the fashion — it becomes intrenched, lesser and lesser men copy—and in turn looks down upon and reviles new or different ideas. And much of the "modern" architecture is in the nature of experiment—it will of itself not be cherished in the years to come, but will have helped to form the architecture of the next epoch. In time the art and architecture of today will be commonplace, and newer innovations will frighten the substantial citizen of that day.

To say that certain pictures or buildings "are worthless is a matter of individual taste and judgment; they may be worthless to me and not to you, just as clothes one man likes, another would refuse to wear. But to say a school or a movement, irrespective of particular works, is a worthless movement, involves not one's taste, but one's philosophy of life; it involves the proposition that a movement in art that challenges the attention of the art world *is so devoid of force of any kind* that it is unworthy of attention—an obvious contradiction."*

* *Arthur Jerome Eddy.*

From "Art et Decoration"

"THE BUILDERS," BY G. DE CHIRICO.

An example of modern decorative composition by a painter who goes to the classic for inspiration. The figures are distorted in the manner of primitive Negro sculpture.

FRESCO BY P. DUCOS DE LA HAILLE IN THE COUNCIL CHAMBER OF THE HOTEL DE VILLE AT REIMS

The conservative moderns do not use the violent distortions so popular with the radical ones; nevertheless, the drawing is not realistic—it is formalized, conventionalized, architectural.

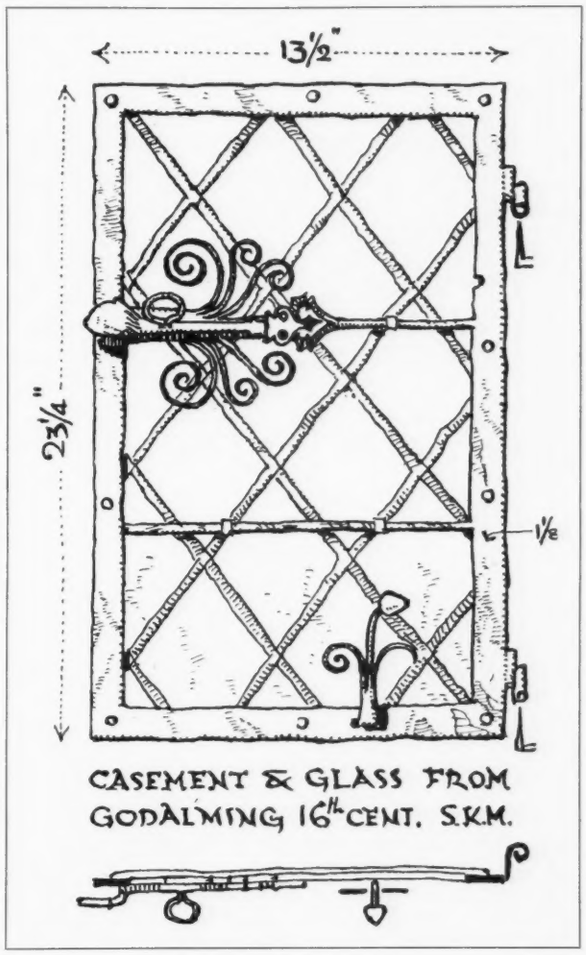
An Architect's Notes on Pen Drawing, 3

By Sydney E. Castle, F. R. I. B. A.

Let us take a brief peep at the mediæval smith, try and gage his character and ascertain what manner of man he was.

At first glance, his work declares him to be a vital person, alive with vigor, spirit and dramatic sense—a less passive individual altogether than his Gothic-shackled contemporary, the woodcrafter.

The smith was like a bold youngster in a timid family. With every respect to the next world, he sniffed the possibility of some good fun in this; and his fingers seemed to itch for scribbling. It may have been that his job was noisy and kept him awake: for there is every sign of strange and peculiar mental sleeplessness.



Doors, for example. Thenadays, they were little more than crude oak planks, entirely devoid of æsthetic interest until our spirited friend, his mind glistening at the least opportunity to combine beauty with utility, stepped in and literally embroidered them with iron lace. He had to take his steps, of course. Though his mind was lavish, his forgings, like our early pen-efforts, were stiff and cramped. But not for long.

We find 12th century doors, such as at Much Hormead in Hertford and Haddiscoe in Norfolk, nothing short of a congestion of decorative iron-patterns weaved by the smith in pure line and resourceful invention.

But ease of technique, as with case of most things, brought its reserve and refinements. He grew fastidious. Witness the strapwork to a door from St. Albans among the illustrations. Here, in company with a shy essay in leaf, are the most perfect scrolls possible to conceive, the grace of which, let me confess, my sketch far from flatters. A big thought, this. Indeed, were I called upon to nominate a stiff test for the pen-student, I can call to mind no better subject to search him than this grace-note in smithcraft. He would come away respectful and possibly, like I did, modest.

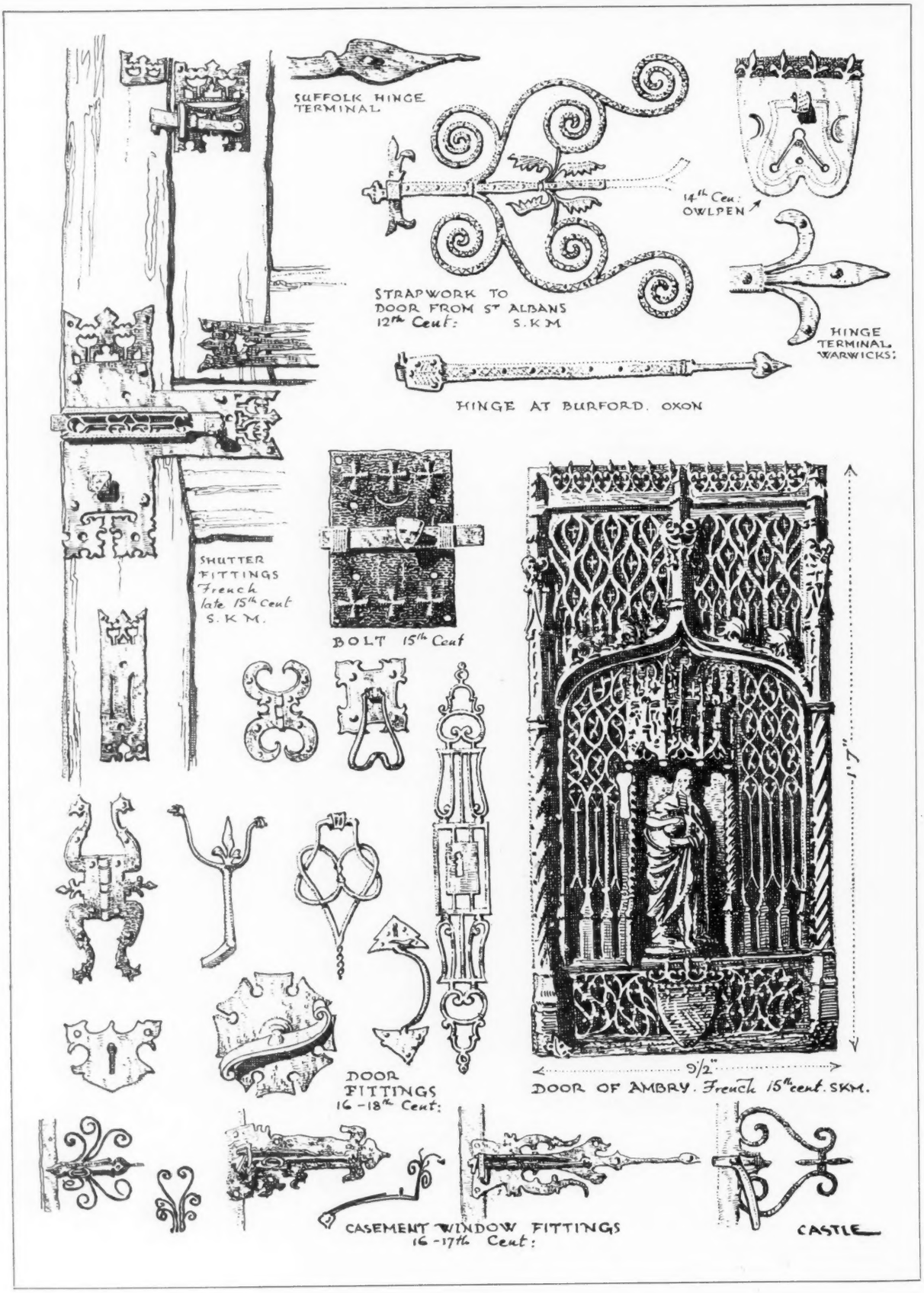
I dwell on the early work of the smith from no mere whim. To me, he is linked inescapably from early steps in pen drawing in that his success depends on the direct and definite. True, he arrives at singular charm and great quality in his plain hammer-surfaces—in those almost imperceptible undulations which caress with light: but in the main, like us early penmen, his must be a sure hand and an articulate voice, his art and craft purely honest.

Mention of hammer-surfaces leads me to remind that much fun and interest can be derived therefrom in pen-hatching or toning.

Departing for the moment from the more obvious details meeting the eye, let me appear to digress slightly while I work round to point.

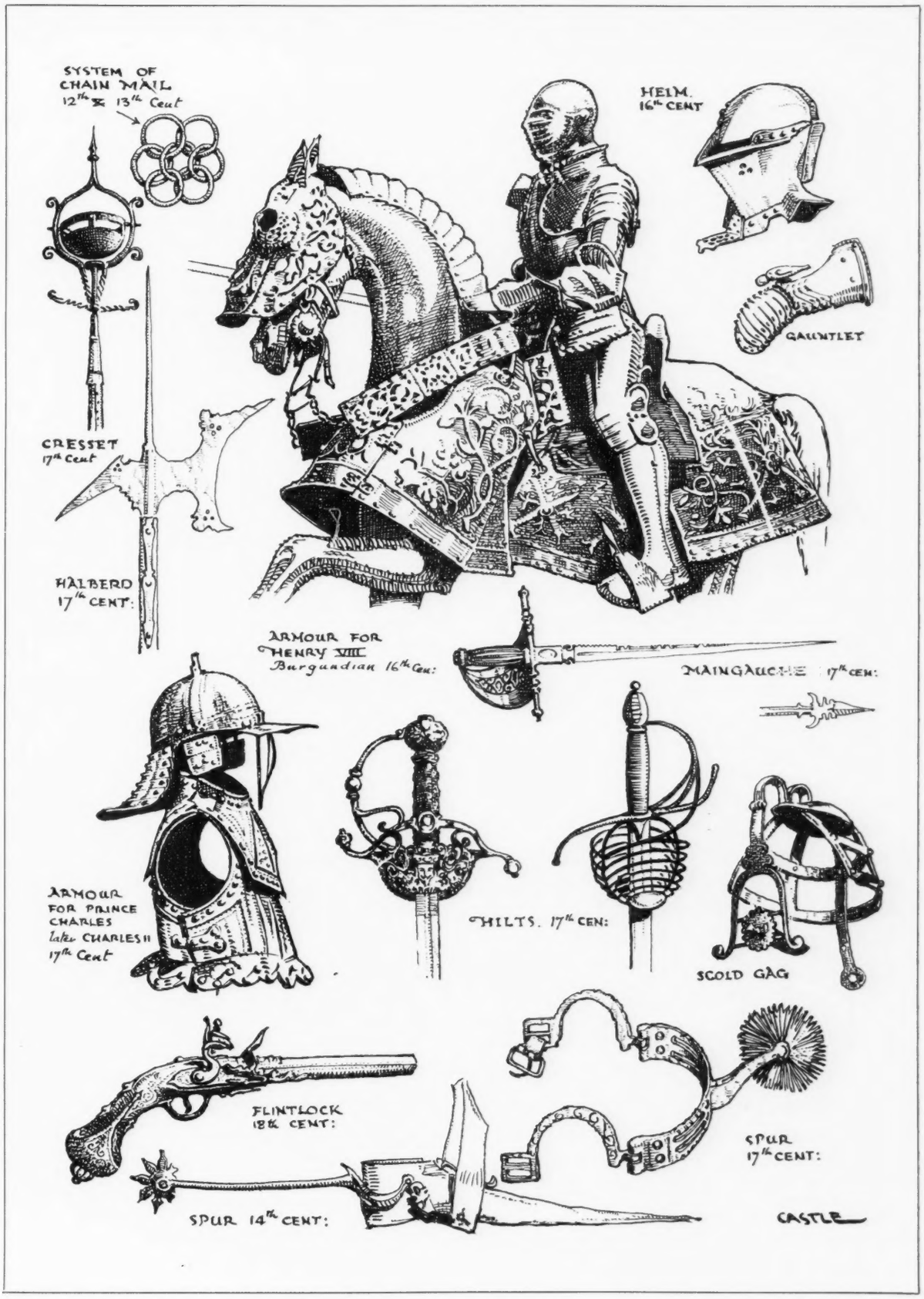
When we are stirred by objects, no matter whether our emotions are aroused by form or color, we are stirred by light. Every human being makes for a marvellous camera—every eye for a marvellous lens the power of which is the greatest miracle of creation. Light is the great lamp of the mind; and whether we are moved by a brilliant sun enamelling its colors and sharply moulding its shadows, or by a more sullied sky frowning its profounder beauties, we are moved by one thing only—the story of light.

Personally, I try to live with light as a great adventure. A few grey days ago, for example, I stood staring at a stretch of old oak panelling. Suddenly came a sensation, both in modern English summers and general effect. My panelling blazed in sun, and I stood blinking at a startling change. It was like a slight puff of breeze on a placid ribbon of millstream. At once came the voice of the adze, and in the lock-plate, the voice of the smith's hammer. My panelling took new life and meaning. In a second, I was re-



PEN-AND-INK DRAWINGS BY SYDNEY E. CASTLE

Size of original sheet, 8½" x 11¼"



PEN-AND-INK DRAWINGS BY SYDNEY E. CASTLE

Drawn on a sheet 11¼" x 8¾"

minded that mould and panel-proportion were not all: there was surface-texture.

Pursuing this line of thought in pen-drawing, let the student for the moment eschew form, and attempt to delineate a piece of roughly hammered metal. Let him first study it, absorb the gradations of light which mark the character of the hammering—note how plainly it tells of the hammer as against, let us say, the adze, or, better still, a polished surface. He will find negative but peculiar incident. Let him be in no hurry, however. Before he may safely embark, there will be something to learn—something the smith is telling him to which, in effect, he must listen before he will ever be empowered to intelligently convey the news of his eyesight. Let him stare at what light does with the surface and ask himself just why he knows it is hammered metal—and *dull*.

Then (if possible sharp from the last experience), let him make a similar study of smooth, shining metal —a suit of armour, for instance. At once he will find that this same light has quite a different story to tell. The dimmest ray seems alive with reflection, every salient is gripped by fierce sparkle, blacks chisel in sharp and sudden definition—in a word, lines simply leap.

Yet both these examples are merely slaves to light —both would sink into nothingness, into one and the same thing, in the darkness of a cellar.

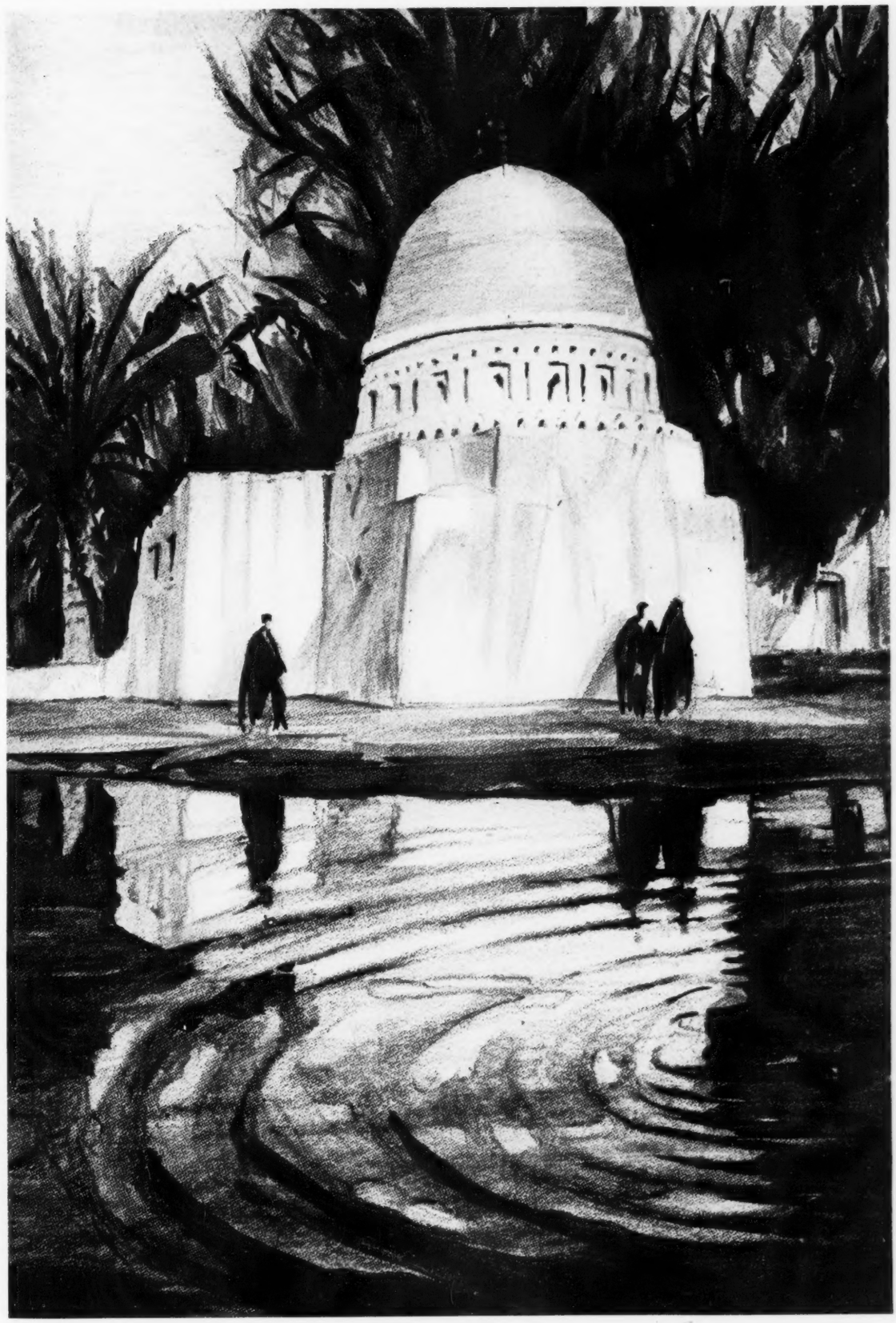
Obvious, you may say: but so is life. Remaining, and ever challenging our wits, is the eternal "why." And the first duty of the brush or pen is to look closely into what they propose to "talk" about.

Save that it has been, of necessity, too brief, I make no apology for detaining the pen-wriggler for so long a time with the smith. To all and sundry who would aspire to intelligent penmanship, I strongly recommend his close acquaintance.

And perhaps that of another ancient ghost, too—the craftsman who began with the primitive bough-stripper and culminated in our Gibbonses and Chippendales.

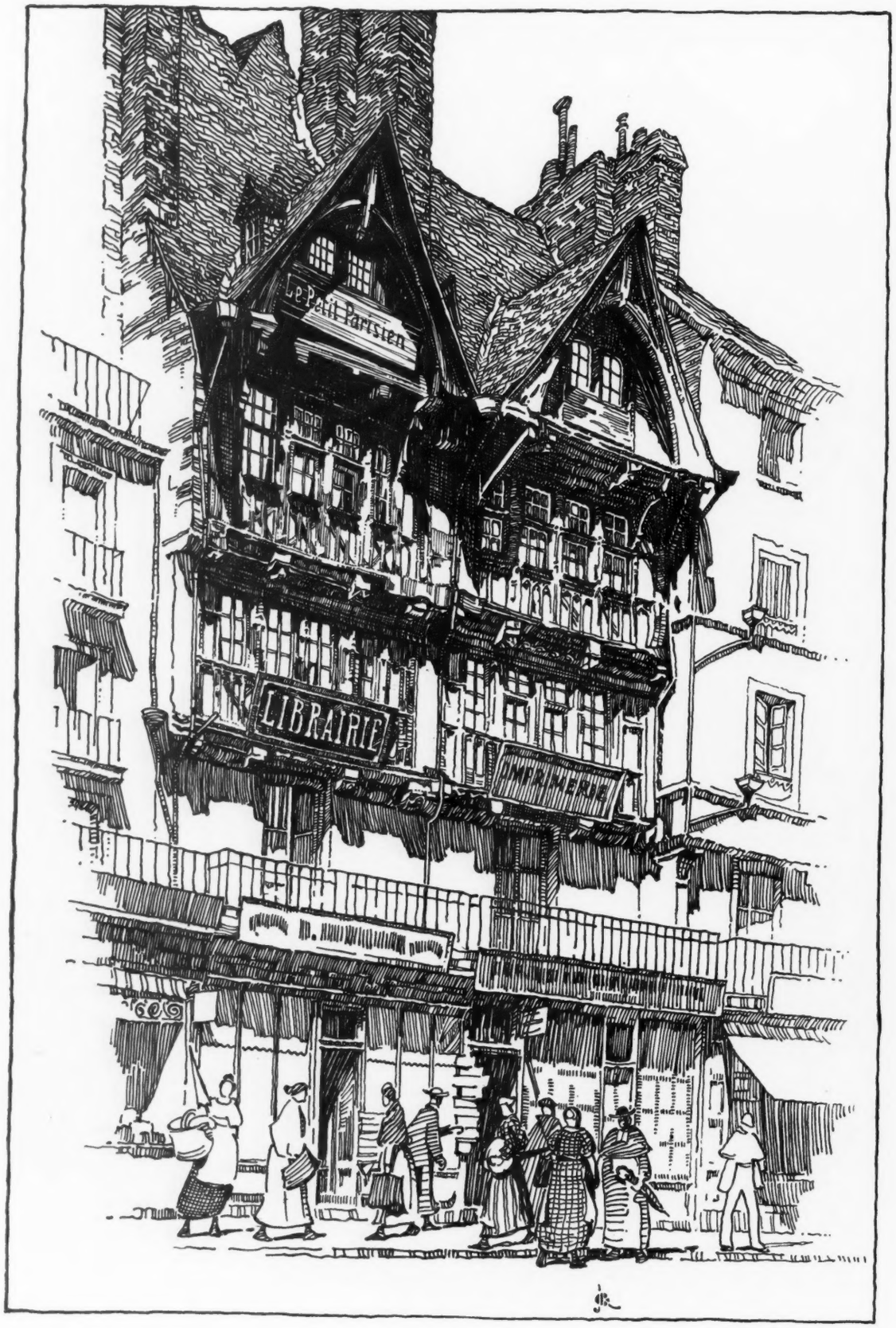
And so to wood, as the loquacious diarist might have had it.

FROM A LITHOGRAPH PENCIL SKETCH BY WILLIAM C. ULRICH



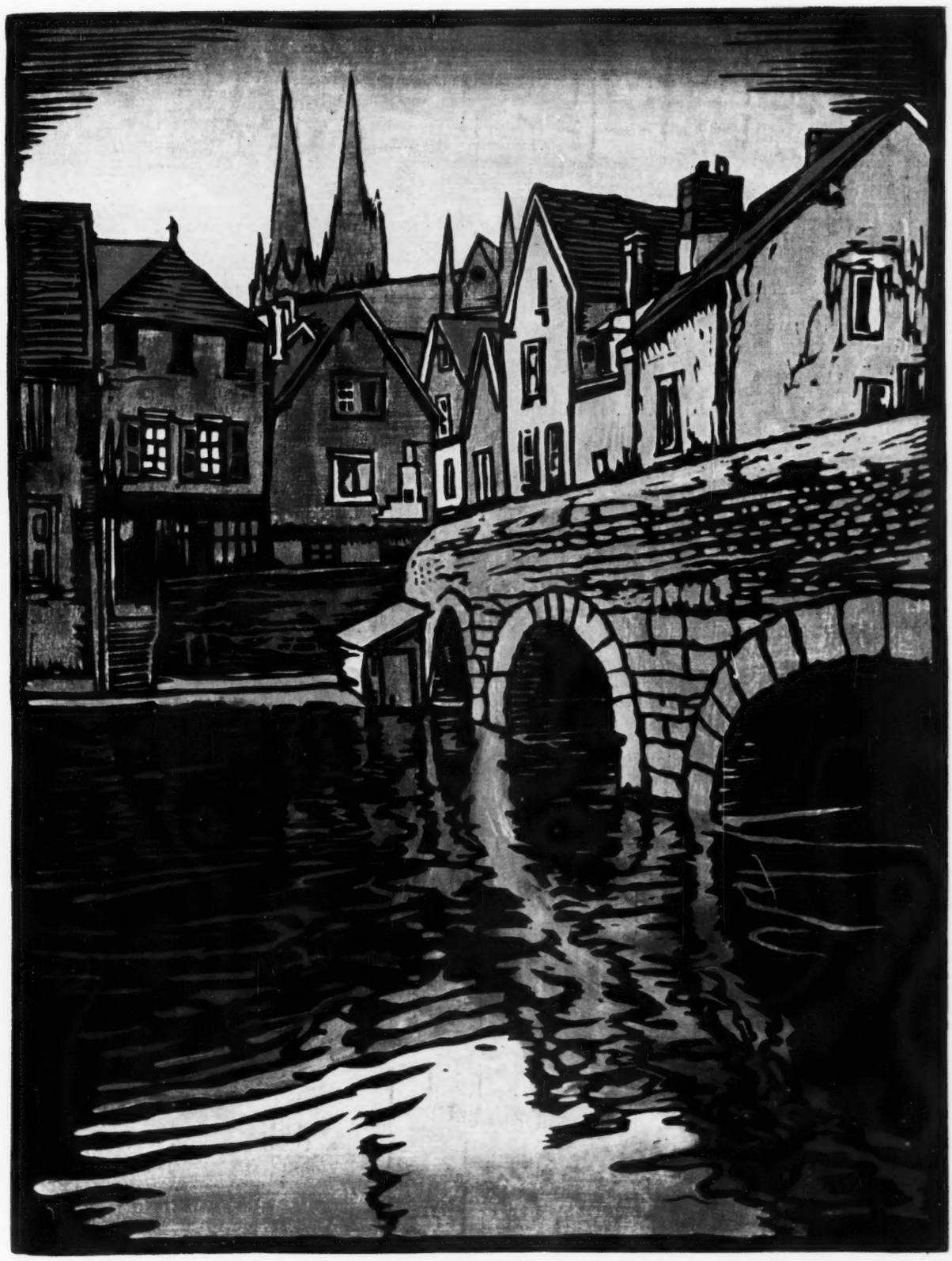
SHEIK'S TOMB NEAR MEMPHIS, EGYPT

DRAWN WITH LITHOGRAPH PENCIL AND INK BY LOUIS SKIDMORE



MAISON DIEU, ST. LO

FROM A PEN-AND-INK DRAWING BY JOHN RICHARD ROWE



OLD BRIDGE—CHARTRES

FROM A COLOR BLOCK PRINT BY WILLIAM S. RICE

PENCIL POINTS
(December, 1931)

Pencil Points Series of Color Plates

This color block print, the original of which measures 11" x 14½", was done by a method described in detail elsewhere in this issue. Only two linoleum blocks were used—one for the black or dark blue outlines and masses of the design and the other for the colors. The artist, who is a well known printmaker, lives in Oakland, California, and is Head of the Art Department of one of the high schools in that community. He is the author of a handbook, "Block Printing in the Schools," which has been widely and successfully used.

Electric Wiring Service for the Modern Home

A Discussion of Some Things Which Are Often Overlooked

By Arthur Bates Lincoln

It frequently seems to the harassed architect, as he reviews the rapid development of modern conveniences and equipment, that it is impossible so to design a house that will not be out of date before the contractor has had time in which to erect it. How often the client for a newly completed house asks about some new gadget, of which he has just received a leaflet through the mail, wondering why it was not considered for his operation. In no branch of the field is this better demonstrated than in electric wiring, with new accessories being designed almost daily to increase uses of the electric current.

It is a far cry back to the days of the combination gas and electric lighting fixture; a pipe stem from the ceiling to make gas available for lighting, if and when the electric current was interrupted. Such a contingency will seem ludicrous to your present-day client, yet it was not so long ago that many houses were built which still offend the eye with these unsightly fixtures.

Originally, with electricity limited to production of light, one central ceiling fixture and a single convenience outlet were considered adequate for service in all but the largest rooms. How short-sighted such vision has proven, taxing clients unlimited dollars to increase the service which the electric current could render through subsequent doubling of the number of outlets.

The limit has not yet been reached. It is always the wisest course, where budget limitations of the house owner do not hold the cost to a minimum, to provide a greater number of outlets for electric service than present requirements might indicate to be necessary. These nerve centers of the house are covered up, once the construction period is passed, and any necessity for adding to their number after the house is completed will involve much greater expense.

With a resolve then to make the plans very complete, let us consider the various parts of the electric wiring installation for the home.

The Lighting Outlet

Electricity was first introduced to the home owner as a dispenser of light, so it is logical that such type of service be the first discussed.

The lighting of any room must be considered from three viewpoints, each a common condition under which light might be required. First there is the flood of light, giving illumination of high uniform intensity throughout a room. This can best be obtained from a central ceiling fixture. Second is the low level of general illumination around the borders of the room, adequate for casual movement and general conversation, but never intended to meet lighting requirements for reading. Local highlights from shielded brackets set on the wall about 5′6″ to 6′0″ above the floor provide this service. Finally, for cozy fireside warmth conducive to restful reading and sewing, there should be shaded floor lamps, plugged into nearby convenience outlets.

The Switch Box

Closely related to the lighting outlet is the switch with which these lights are today controlled. No longer do cords or pull chains hang down from the majority of the ceiling lighting fixtures in the home; remote control has come into existence, its convenience fully recognized by the progressive client. Hence it is expected that as one enters each room a switch controlling some part of the lighting will be within convenient reach. Otherwise the unfortunate seeker after light is threatened with a stubbed toe in his blind search.

The clumsy looking snap switch of pioneer electric installations long since gave place to the more efficient push button. This, in turn, is today being superseded by the even trimmer and more business-like tumbler switch; pointed up when the lights are up, and down when they are doused. Located adjacent to the latch side of the door, a touch of luminous paint on the tip will often expedite their discovery in a darkened room.

A path of light sweeps through the modern house along the way chosen by the nocturnal wanderer, be he victim of insomnia or raider of the refrigerator. Three-way switches are the genii which make it possible to light up a room as you enter it on one side, and switch off the light when you leave through a door on the opposite side. These have long been in use at the foot and head of stairways to instantly light the stair from either floor and obviate the necessity of turning off a light and negotiating the risers in the dark.

The remote control of lighting outlets increases the hazard that lights will be left burning needlessly, thereby wasting current and adding to the monthly bill for this service. Pilot lights, which warn by a brilliant bull's-eye on the switch plate, when a distant light has been left burning, reduce the chance that a lamp in attic, cellar, or garage may not be turned off.

The Convenience Outlet

The number and location of the convenience outlets is the test of adequate wiring in the modern home. Not only should a sufficient number of these be provided, but their location must be such that no wall surface, where electric current might be required in the future, will be devoid of this service. Neither must distance from outlet to appliance require exceptional lengths of cord. Installation of even a few additional outlets in the future will be so expensive, compared to their cost at the time the house is being built, that the architect is fully justified in requesting more on his plans than immediate needs seem to demand.

Convenience outlets of the duplex type, providing opportunity for plugging two appliances into the same outlet, are generally desirable today. The additional cost of the extra socket is negligible, while it practically doubles the possibilities for service.

All outlets of this type should be located with due regard for the particular function which they are intended to perform. By far the majority belong in the baseboard near the floor, where they will be inconspicuous and yet accessible. Floor lamps, radio and similar furnishings are seldom moved and may be considered semi-permanently located. Hence it is desirable to keep the cords close to the floor, where they will be removed from vision, and the hazard of tripping over them will be lessened.

Some equipment, such as the vacuum cleaner, requires plugging in of the appliance cord every time it is used. Locating outlets for these at waist height will preclude the necessity for continual stooping to the baseboard. Most of the outlets in the service portion of the house, that for the ironing board cabinet for instance, should be thus elevated. These, intended for plugging in temporary cords as for an electric percolator or toaster, will be most useful when not placed too low.

In the dining room it is often desirable to place an outlet in the floor under the table, from which a wire, piercing the rug, may be carried up to a convenience outlet under the table top. This will facilitate preparation of coffee or toast, and provide current for the occasional party meal at which table lights may be preferred to more customary lighting means.

The Panel Board

Location of lighting, switches, and convenience outlets has been covered in detail, since the architect is genuinely interested in their proper location to give maximum service, and to that end shows their location upon his plans. They are in daily use by every member of the family once they move into the house, and every forethought to place them properly is fully justified.

There is another important unit of the electric wiring installation to which more consideration should be given than is usually the case. This is the panel board or fuse box, where the various wiring circuits are protected against any overload which might result in serious damage. Only in recent years has it become customary to locate this unit where it could be found readily. It was long placed in the cellar adjoining the meter box, where it could only be reached by the man of the house, when that emergency, a blown fuse, made it necessary.

Since all circuits are distributed from this box, it is logical that it be placed at the load center of the system, which is the kitchen. Hence the modern preference for placing this box in the wall of some part of the service quarters of the house. The very fact that it is not hidden from sight down in the cellar will encourage many housewives to learn about its true function, and to acquaint themselves with the procedure of changing a fuse.

Circuit breakers rather than fuses have for a long time protected equipment in power houses in case of

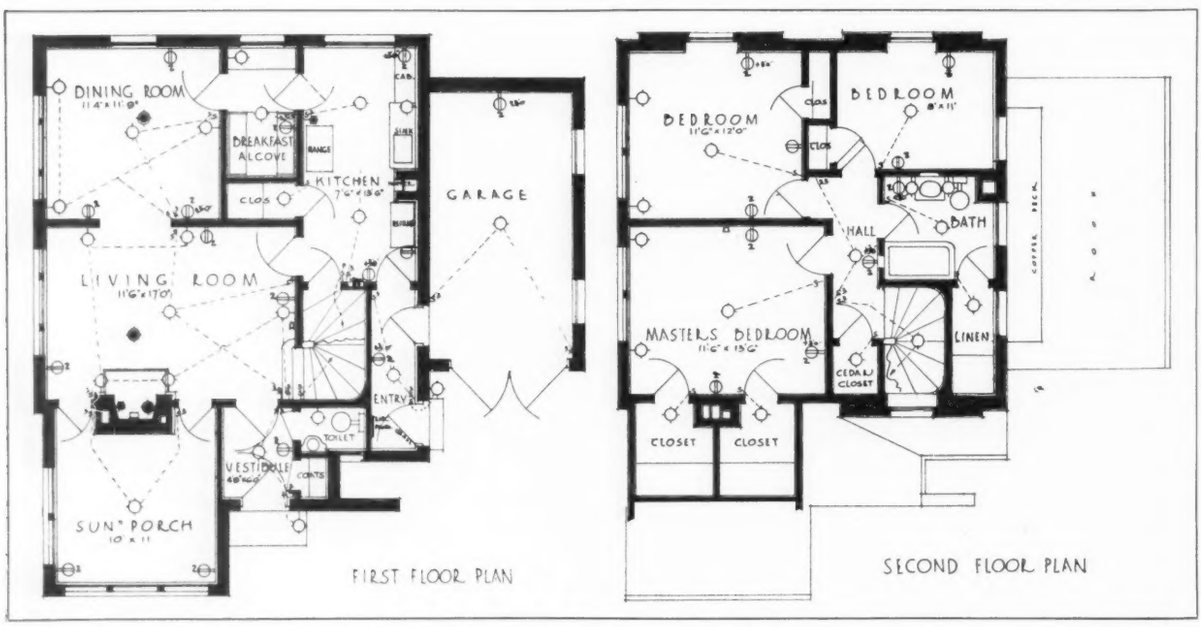
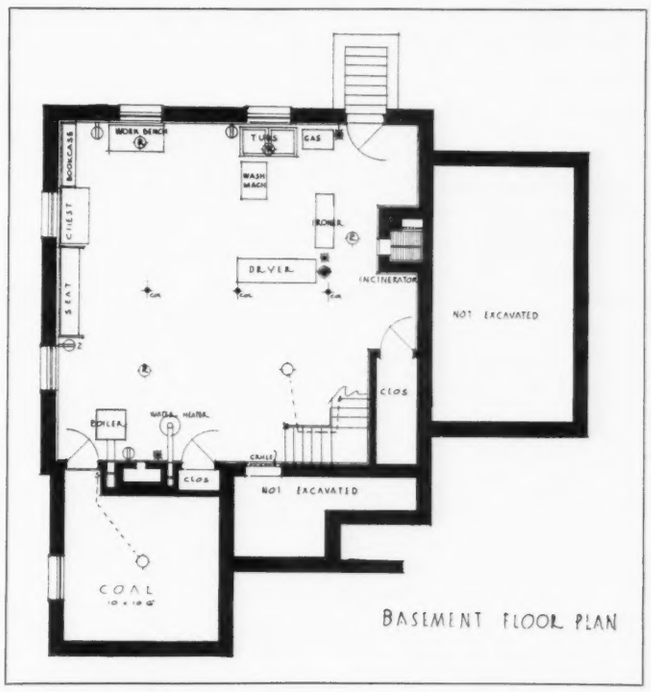


DIAGRAM OF ELECTRICAL FACILITIES FOR A MODERN HOUSE

an overloaded circuit. The manufacturers of electrical appliances are now offering to the architect, for the home, a circuit breaker of this nature for low voltage circuits such as are found in home installations. Safety is assured absolutely, for they are completely enclosed and sealed, and cannot be accidently mishandled. Reestablishment of a broken circuit is simple, requiring but two movements of a switch handle; nothing need be replaced. No fuses have to be kept on hand, eliminating the embarrassment arising when no fuses can be found in an emergency—an embarrassment that is quite common.



THE BASEMENT SHOULD NOT BE NEGLECTED

Another accessory, while not readily shown on the plans, will prove an important adjunct to smoothly run households; that is the bell ringing transformer. This tiny servant, usually placed upon the cellar ceiling, will be an ever ready guarantee that the bells will ring whenever the push button is pressed at front or service door. No run-down storage battery need embarrass a family through failure to hear a bell ring, thereby keeping an important caller standing at the door.

Service Lines and Meter Box

There are other parts of the electric wiring service which seldom show on the plans, but which are necessary to complete the system. Public service wires must be brought in from a pole in the street at the front, or alley in the rear. These are usually strung overhead, although in some communities rigid restrictions require underground pipe conduit.

From the place of attachment of the wires at the eaves, they are led down to the meter box in pipe conduits to prevent possible tampering. The meter may be placed in a metal box housed in the outer walls of the house, a small door on the exterior face of the wall protecting it from the elements. Meter testers and inspectors never will need to enter the premises of a house thus equipped, a convenience and relief for those among your clients who are timid about opening the house to strangers.

From the meter and service switch, protected wire carries current to the load center, the panel board. From this point the various circuits are run to best distribute demands upon the service. B.X. flexible armored cable is the most customary type of wiring used in the average small home; it is readily handled, easily concealed in partitions and under floors, and seldom endangers the house with the hazard of broken circuits.

Wiring Outlets on Floor Plans

For the purposes of graphic presentation, floor plans are reproduced to illustrate the recommendations made herein. These show location of outlets as they are indicated on working drawings.

On the first floor the principal entrance to the house must be well lighted. In this instance a bracket on the wall adjoining the door will serve. A switch within operates this light. The entrance vestibule is illuminated by a ceiling light, with three-way switches at both outer door and entrance to living room.

Two means of lighting the living room are indicated, each under control from the front entrance. One three-way switch operates a central ceiling outlet, with alternate control at dining room door and the door leading in from the kitchen. A second three-way switch controls side wall outlets, of which five are shown. The other control for these is at a door leading to the sun porch. Still a third three-way switch at the foot of the stairs extends its service to an outlet on the second floor above the stairway.

It is seldom wise to place three or more switches at one location as here, for the household will often be annoyed by the necessity of flipping two, or even three, tumblers before they locate the one they want. Such combination switch control should always be laid out according to system. In the present instance, the switch nearest the door furnishes general lighting from a ceiling outlet, while the one furthest up the stair lights the second floor outlet.

Three-way switches at either door leading to the sun porch assure flexible control of the central ceiling fixture in this room. The duplex convenience outlets will provide current for the portable lamps, victrola, radio, or any other appliance of this type with which the household may wish to furnish the room. In the living room outlets like this are distributed to give service to such appliances which might be set against any of the blank wall surfaces. Being of duplex type, they double the opportunity for service. All in these rooms are placed in the baseboard, since the cords will seldom be disconnected from the appliances they serve.

Ceiling and wall outlets combine to light the dining room in manner similar to the living room. Great reliance is placed upon the central ceiling fixture in

this room, with three-way switches at living room and alcove doors. Most of the light is concentrated over the dining table. Two of the three wall convenience outlets are located in the baseboard, but the third is elevated in the belief that it will have a serving table placed under it. This will facilitate plugging in cords for the toaster, etc. A floor outlet in the center may be used to bring a cord up under the table.

Breakfast alcove is lighted from a ceiling outlet with a pull cord, since it is but a step across this narrow room. An additional wall outlet over a work counter nullifies possible shadows from the overhead fixture. The duplex convenience outlet will provide ample current to cook the light breakfast of the hurried commuter.

The kitchen is a long and narrow room. Since natural light comes from one end only, due to the attached garage, two ceiling lights are suggested, operating simultaneously on three-way switches, one at the door leading toward the dining room, the other at the opposite end of the room. A supplemental bracket over the sink will absolutely preclude possibility of shadows at the dishwashing task, while a convenience outlet above the dresser counter will supply power for the mixer, beater, and similar type kitchen equipment of the modern housewife.

The automatic refrigerator will require either electricity or gas, while the ironing board cabinet must have its elevated outlet for heating the iron. Because of its depth the kitchen closet is supplied with a light. Some will want a switch here, others prefer a drop cord. The switch leading down to the cellar, marked by the symbol "P," is one of those remote control units, where the light is in danger of being left on, with needless waste of current. Therefore a pilot or bull's-eye is placed on the switch plate, to glow relentlessly whenever the light below is burning.

Three-way switches operate the ceiling outlet in the service entry, since this passage is rather long. The convenience outlet should be placed high, for it will receive but casual use. The electric panel board is placed in this passage, opposite the glass panel of the service door. Here, if the new type circuit breaker panel is installed, the housewife may rectify any trouble from overload, without need for calling in outside assistance.

The garage with its ceiling outlet and three-way switches is well equipped; the elevated convenience outlet at the rear providing current for a trouble light, or power for any appliance which may be used.

The bracket outlet outside the service entrance will light the garage approach as well as this doorway. It is controlled by a switch just within the door.

The Second Floor Plan

Turning now to the second floor plan, the outlet already mentioned as controlled from a three-way switch at the foot of the stairs is directly over this winding stairway, a very desirable location. It may be turned off at the head of the stairs, where another three-way switch controls the ceiling outlet of the upper hall. The convenience outlet is largely for a vacuum cleaner, and should, therefore, be elevated.

The master's bedroom has a central ceiling outlet to provide general lighting. It is controlled from the switch at the door. Wall outlets flank the windows to introduce a decorative element, while at the same time offering supplemental means of lighting. Duplex convenience outlets are well distributed, the one next to the dresser elevated. The two closets are each supplied with light outlets controlled from switches at the door.

A similar program of electric wiring service has been proposed for the bedroom at the rear, while in the small room, only the central ceiling fixture on a switch and two convenience outlets are deemed necessary. The bathroom is sufficiently large to have a ceiling outlet with switch at the door, and supplemental wall outlets flanking the medicine cabinet. A convenience outlet at hand height will power the accessories used in the toilet of the present-day household. The deep linen closet is lighted as a matter of course.

Basement Outlets

Not infrequently, in the laying out of a wiring system, the basement is slighted. This is seldom fatal, since the unfinished condition of the average cellar ceiling makes additions to the service a simple matter. Some minimum provision should be made as suggested here.

The ceiling outlet near the stair is the one lighted by the pilot switch in the kitchen. Other ceiling outlets will have receptacles operated by snap switches. One of these will illuminate the area about the heating plant, a second light the space about the incinerator, a third the laundry trays, and a fourth a work bench at the rear.

Convenience outlets are well distributed to power heating appliance, washing machines, dryers, and mangles—also for lighting a lamp at the seat for any reading member of the family. The coal bin should be lighted, and control vested in a switch at the door.

A Small Modern Restaurant

By John Vassos

Space for a new soda fountain and tea room restaurant had been contracted for at 1410 Broadway, Manhattan. Conservative plans had been drawn up for the interior, and at this point I, as a designer, was called in to make recommendations. The competition is very keen in this section, and it was necessary to do a restaurant that was different if business was to be lured away from established places. It has always been my contention that a so-called modern interior does not necessarily belong to any particular stratum of life or of business—it is as good on Broadway as on Park Avenue, and vice versa. So without hesitation, I immediately recommended a complete change of plans to an interior of the modern type.

The shape of the room was ugly and difficult—funnel-shaped, wide in front and narrowing greatly in the back. Interest had to be created, as the room itself held none. I proceeded to divide the room in three definite light sections, treating the soda fountain and counter as a separate unit. I created an architectural light beam that runs almost the entire length of the counter, giving a feeling of interest and intimacy to the counter at the same time lighting it completely with no shadows, the lights being behind opaque glass. (The upper part of this beam holds the air-cooling system and the air circulates constantly through this, purifying the entire room and keeping it cool.)

The room held four structural columns, clumsily placed as one usually finds them in buildings today. These presented a problem, but I accepted them as part of my decorative scheme rather than trying to hide them. Their solidity I killed by lighting them with perpendicular troughs of light and the solid mass of plaster and steel became a shaft of light. From these columns I started my divisions of the ceiling. A trough eighteen inches in depth, closely wired with bulbs giving an almost perfectly even light radius, stretched semi-circularly until the light thrown from this trough faded and the light from the next similarly constructed trough began (this can be more easily understood by looking at the photograph on page 890). The installation of the lighting and the troughs and beams presented several problems, one of which was very amusing. The ironworkers claimed the job was theirs, the plasterers claimed it was in their

EXTERIOR VIEW AT NIGHT—RISMONT RESTAURANT, BROADWAY, NEW YORK

DESIGNED BY JOHN VASSOS—LAURENCE AND JOHN SCACCHETTI, ARCHITECTS

INSIDE THE ENTRANCE DOORWAY, LOOKING TOWARD THE REAR

VIEW TOWARD THE REAR FROM ABOUT THE MIDDLE OF THE ROOM

RISMONT RESTAURANT AND TEA ROOM, NEW YORK—DESIGNED BY JOHN VASSOS

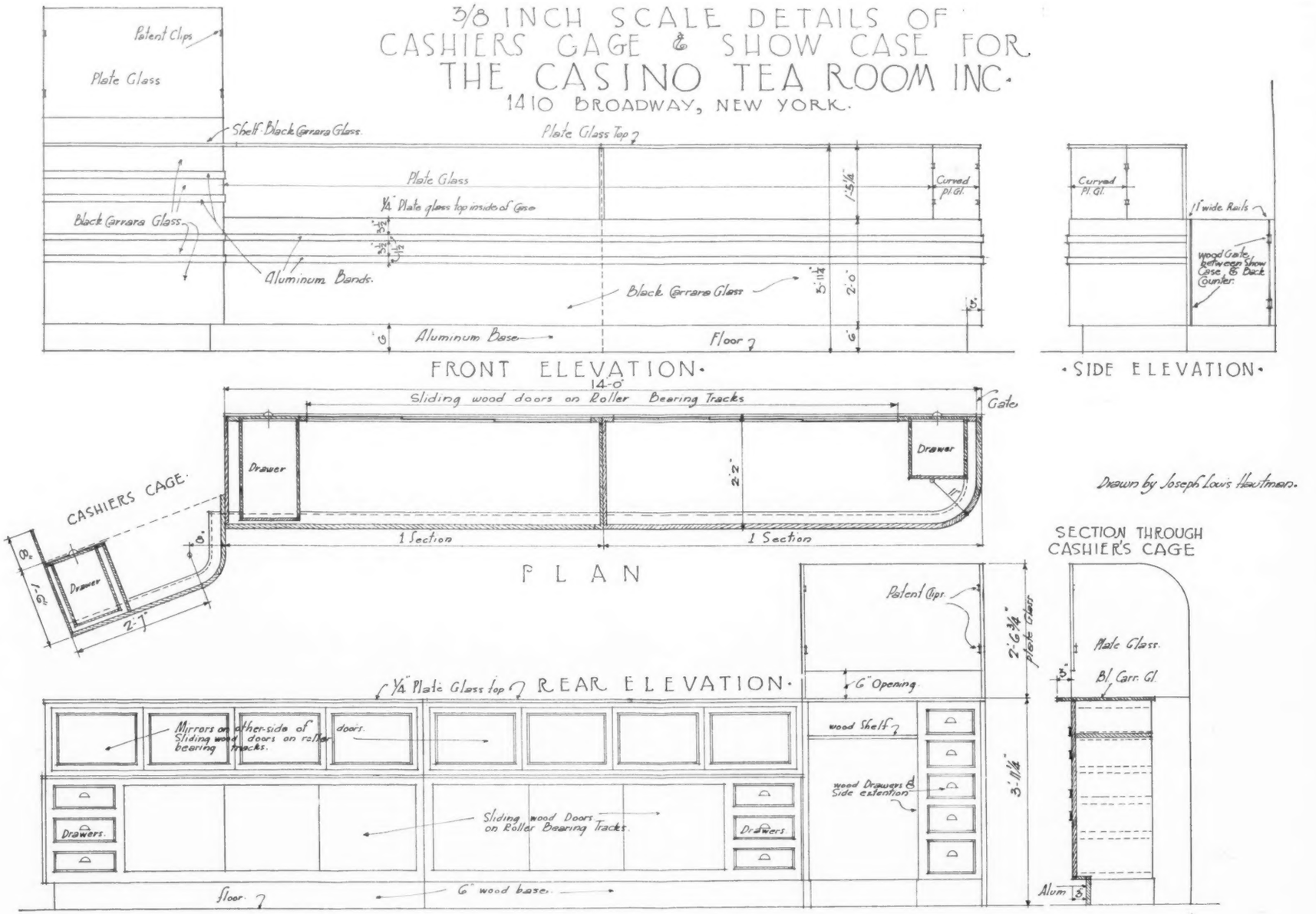
Laurence and John Scacchetti, Architects

SODA FOUNTAIN AND LUNCH COUNTER—NOTE METHOD OF LIGHTING FROM ABOVE

A DETAIL OF THE FOUNTAIN AND ONE OF THE BENCH UNITS

RISMONT RESTAURANT AND TEA ROOM, NEW YORK—DESIGNED BY JOHN VASSOS

Laurence and John Scacchetti, Architects



DETAILS OF THE RISMONT RESTAURANT AND TEA ROOM, NEW YORK—DESIGNED BY JOHN VASSOS

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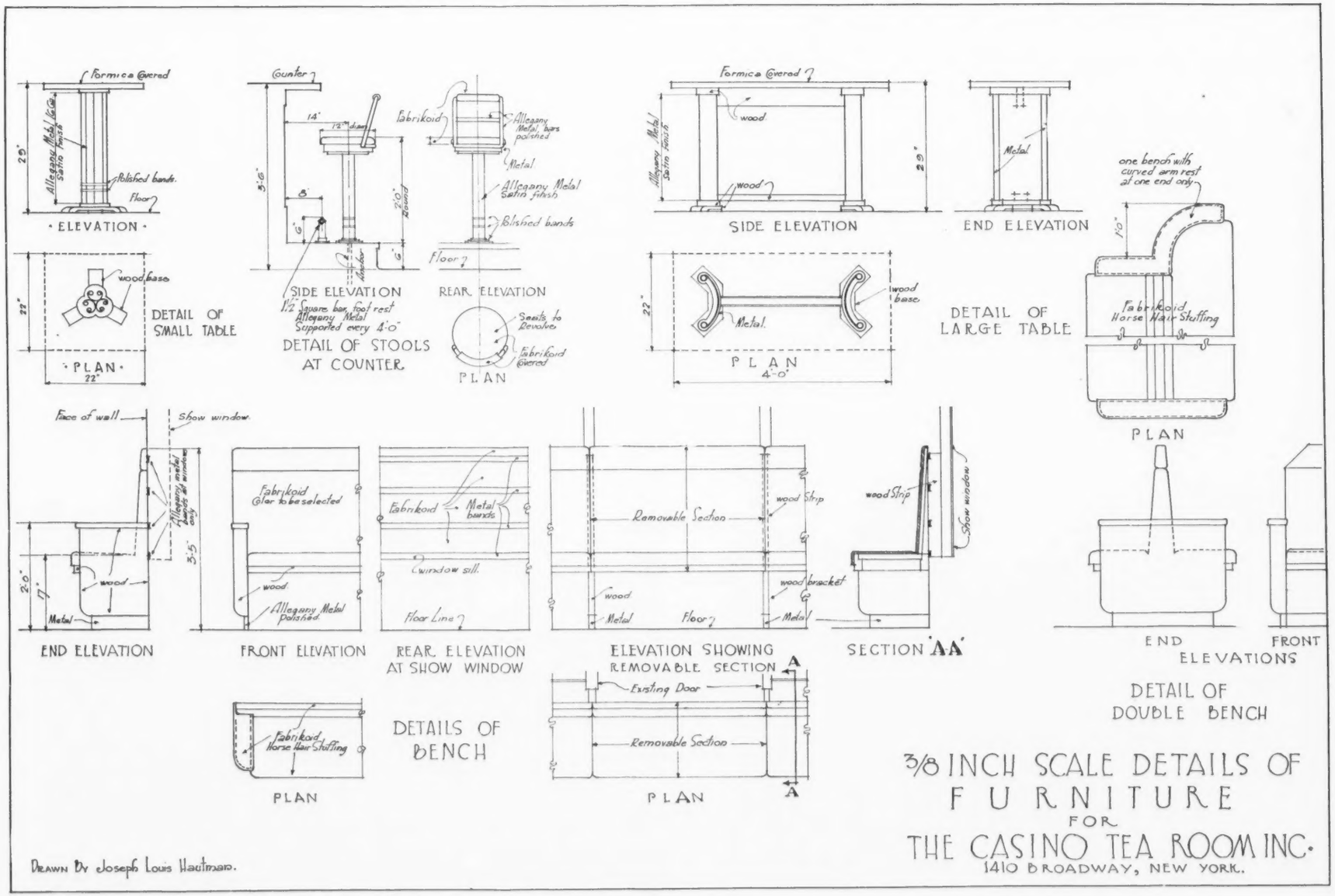

DETAILS OF THE RISMONT RESTAURANT AND TEA ROOM, NEW YORK—DESIGNED BY JOHN VASSOS

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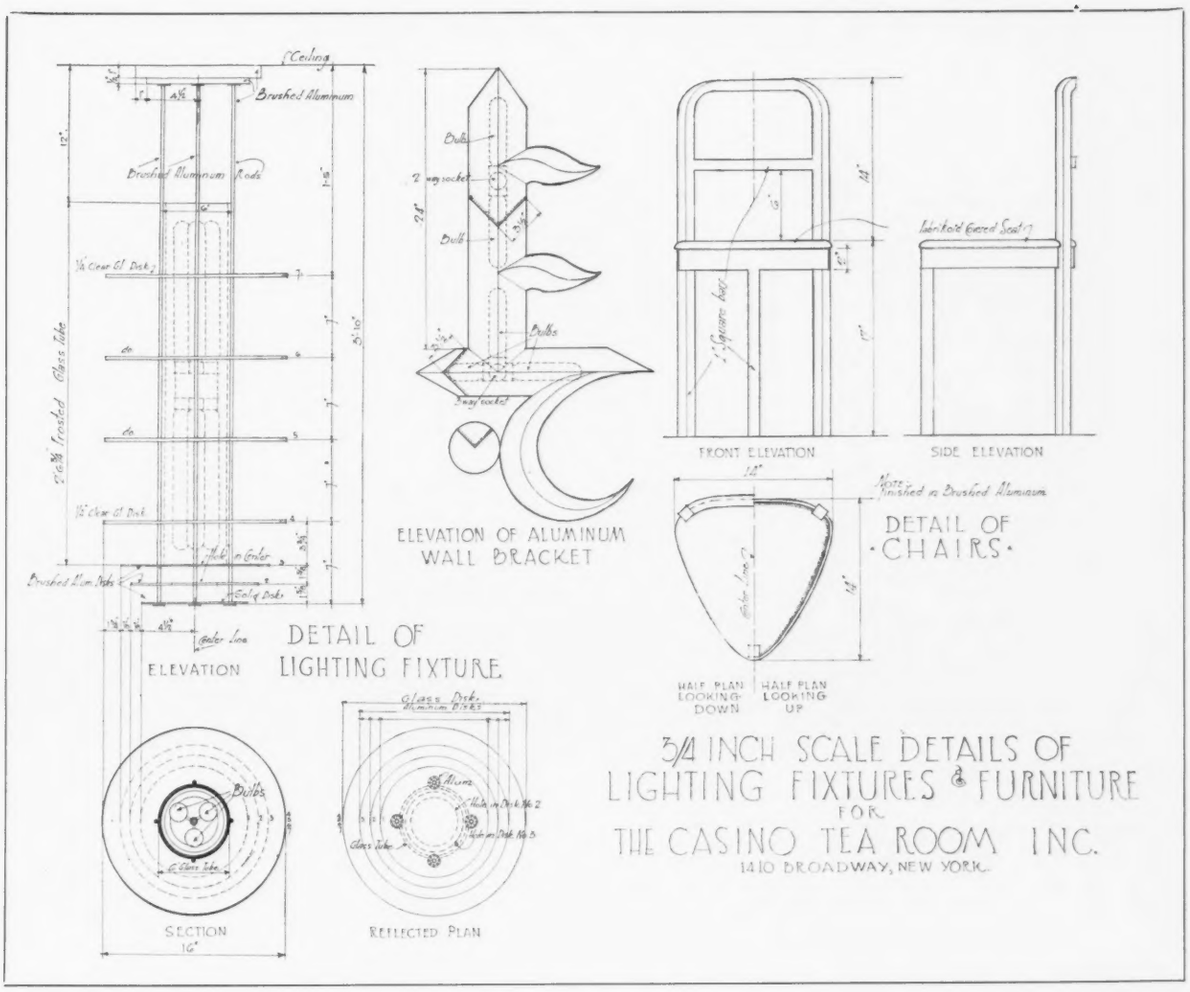
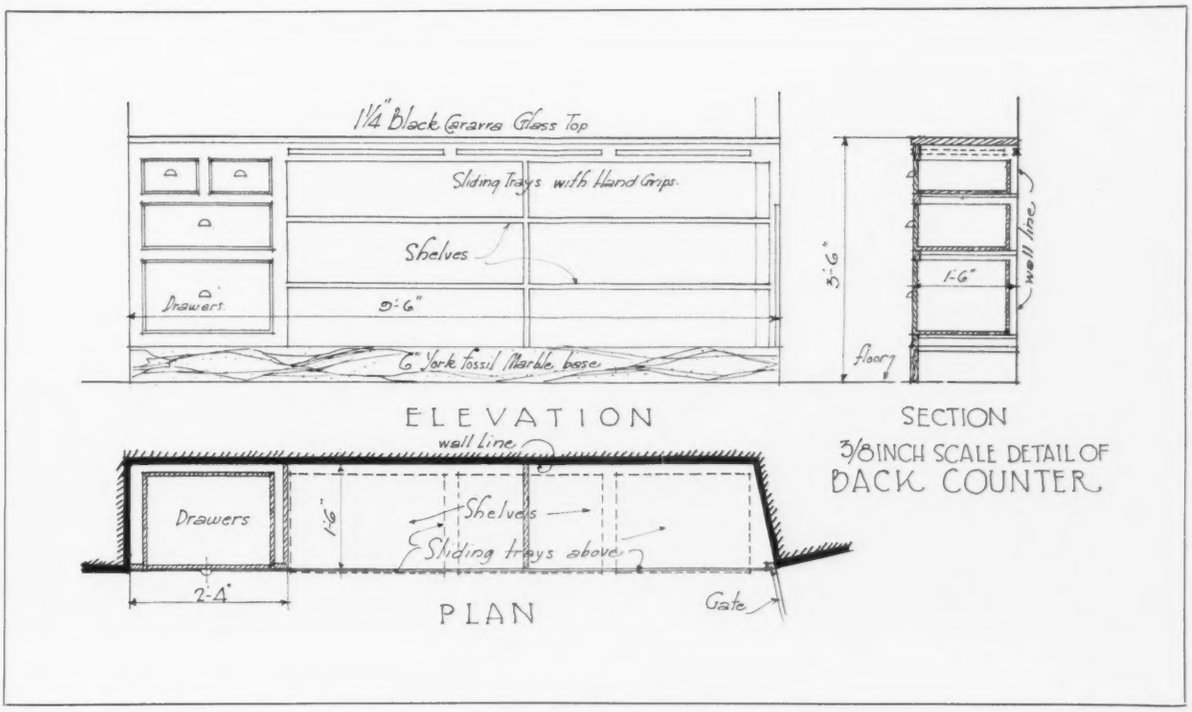
AT THE FRONT OF THE SHOP—CANDY COUNTER AND CASHIER'S DESK

A CLOSEUP OF THE CANDY SHOW CASES—NOTE THE LIGHTING FIXTURES

RISMONT RESTAURANT AND TEA ROOM, NEW YORK—DESIGNED BY JOHN VASSOS

Laurence and John Scacchetti, Architects





LIGHTING FIXTURES AND FURNITURE, RISMONT RESTAURANT AND TEA ROOM—DESIGNED BY JOHN VASSOS

Laurence and John Scacchetti, Architects

province, but the electricians finally won by claiming these troughs as a light fixture. (So heated grew this discussion, at one time, that we were threatened by the unions with a walk-out.) As a matter of fact, it was a job for art metal people working in conjunction with the electricians.

There is no definite decoration as it is generally understood in this interior. As a matter of fact, until the lights are on, the room looks quite empty. The color scheme is beige, in three shades. All of the seats are covered with Spanish Rose fabrikoid, with black buttons in the cushions for contrast. The tables have a very novel leg made of three rolled sheets of aluminum like tubes placed back to back, giving a Doric and an Ionic motif at the same time, with very deep shadows in the recesses. This rests on a solid walnut base and supports a black formica top. The benches are a combination of walnut and aluminum, the metal being used on the base so the wood will not come in contact with water when the floor is being washed and become soiled. The mirror that stretches in back of the counter is of gun metal interrupted by the brushed metal of the coffee units. The show case is walnut in the back, and black glass with Allegheny steel bars in front. This show case terminates in the cashier's cage.

A stem, leaf, and bud design of aluminum has been used for the wall lights, with the bulbs placed in back of it three inches from the wall, casting the light reflection on the wall, rather than into the room.

The show case lights, the ceiling light unit, even the menu and dishes, were designed by me in complete harmony with the entire interior, so that perfect unity was attained. For the windows I designed stands of clear and opaque glass with black glass for contrast. The shafts of these stands are lit, giving the foods displayed additional value. All material that is customarily used was eliminated and everything is absolutely sanitary, crisp and clean. Even the lettering for the restaurant name and the cards for the windows were especially designed and lettered to be in conformity with the whole. The result is consistency throughout.

There was one extremely important thing to be borne in mind. This is probably one of the most expensive restaurants per foot of floor space in the world. And the only way it could be made a paying proposition was to be able to serve a great many people quickly. In other words, the place had to be attractive and comfortable, but it had to be so planned that people would not be tempted to lounge. Therefore, the benches are wide enough—but not too wide—and the customer realizes after eating his or her luncheon that the place to smoke one's cigarette is outside. The chairs are comfortable—if one does not sit too long on them.

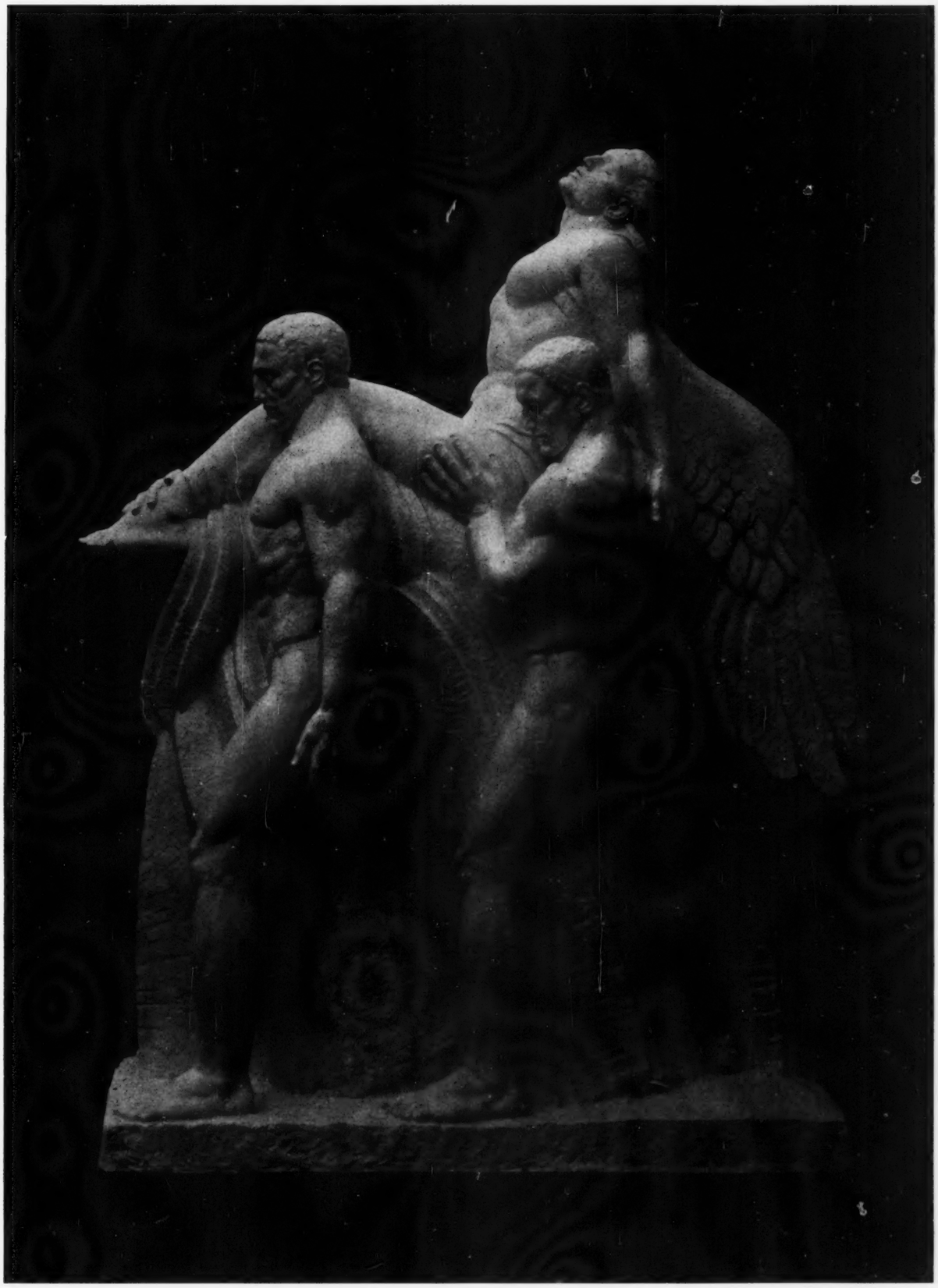
As you look from the street into the restaurant, you get a feeling of space and openness—due to the lighting and the fact that the windows have not been closed in but are of clear glass giving a full vista of the interior. Human beings, like moths, are attracted by light, so I even went further and put a shaft of light between the front doors.

It would seem to have been proved that, for a restaurant, a functional interior is a natural one for modern Americans—regardless of their strata of life—because this establishment has been obliged to close its doors each day while still packed to capacity. Old English tea rooms, Moorish fountain rooms, Spanish grills, etc., have had their day. The marvelous possibilities of light have not been touched—we have been hiding light back of period chandeliers, wrought iron ship lanterns have been used to conceal bulbs, wall brackets and what-nots have been used. (Incidentally the photographs reproduced on these pages were taken with no other lights than those of the room itself in a five-minute exposure. This was possible, so evenly is the light distributed.)

Laurence and John Scacchetti, architects, made the working drawings and details for the construction of the interior. The admirable photographs were taken by Peyser and Patzig. Great credit is due to the Garis Bros., owners of the Rismont Tea Room, who invested real cash in a new and untried idea.

"ALAS, POOR MARY!"

PENCIL SKETCH BY GEORGE NELSON



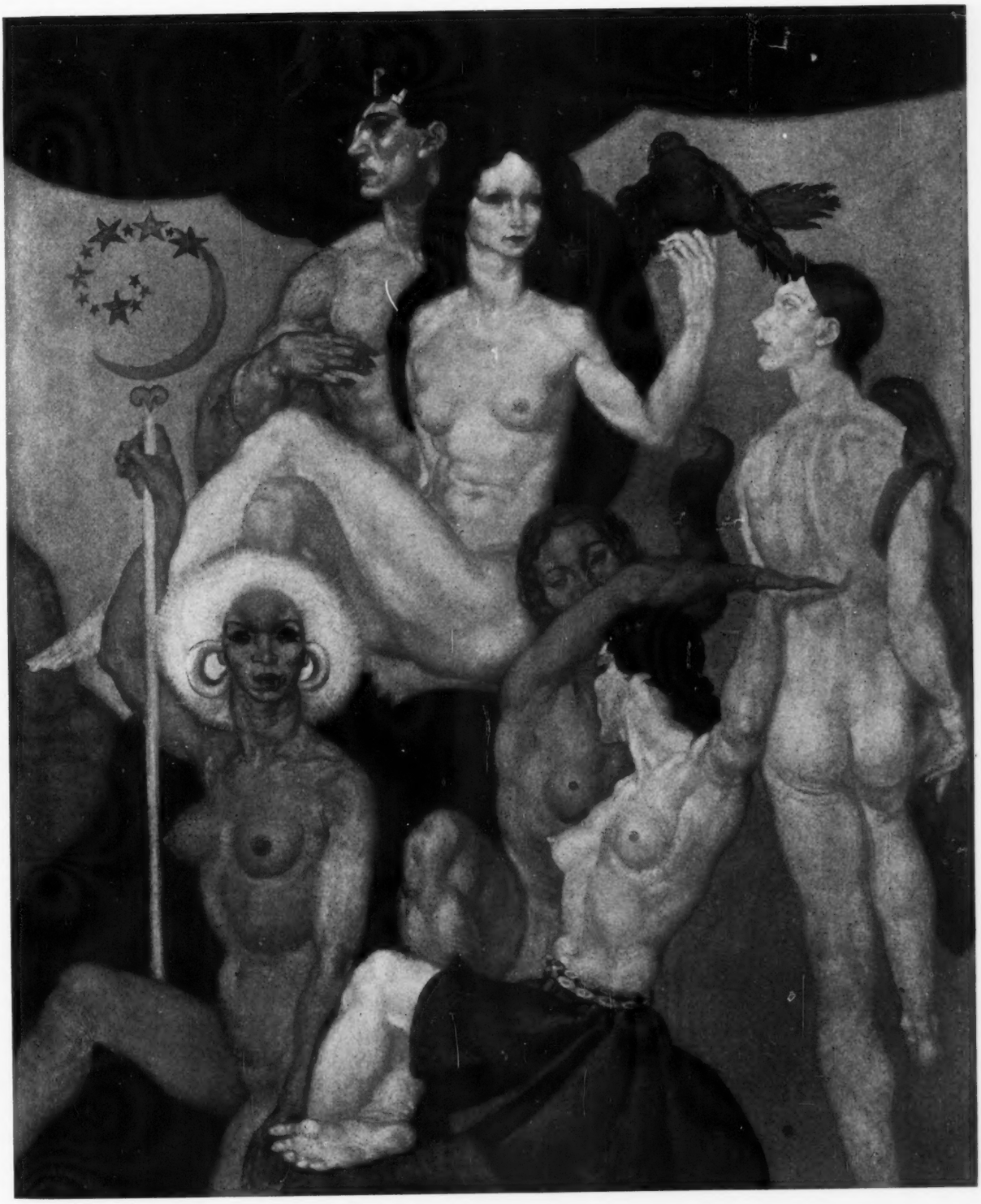
"WOUNDED VICTORY"

SCULPTURE BY DAVID K. RUBINS, FELLOW OF THE AMERICAN ACADEMY IN ROME

PENCIL POINTS FOR DECEMBER, 1931

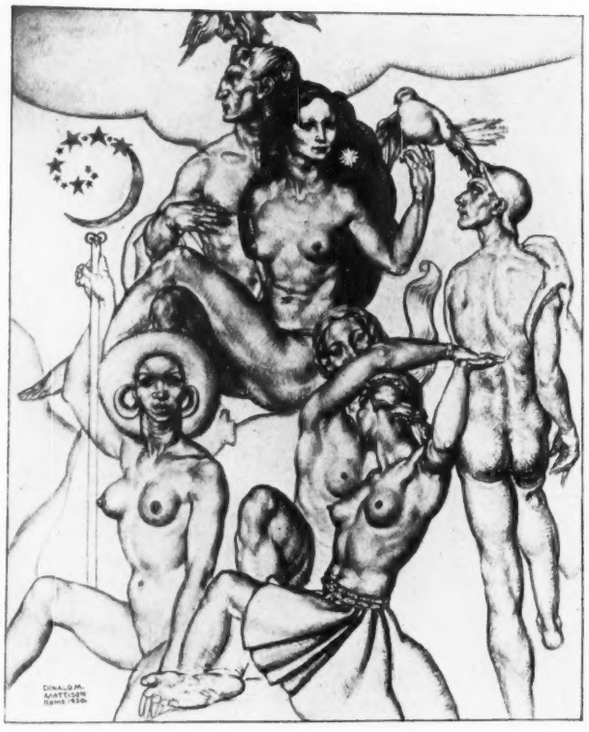
VOLUME XII NUMBER 12

This sculptural group shown on this plate was done at Rome while the sculptor was studying as Fellow of the American Academy. The original measures about five feet high. It was included, along with other works by Mr. Rubins, at an exhibition held in the Architectural League of New York clubhouse during the latter half of November. The small cut above shows another view of the group.



"FANTASY"

PAINTED IN OILS BY DONALD M. MATTISON



PENCIL POINTS FOR DECEMBER, 1931

VOLUME XII NUMBER 12

The painting shown on this plate was done while the artist was studying as a Fellow of the American Academy in Rome. It was included in an exhibition of the work of recently returned men held at the Architectural League clubhouse in New York during the last half of November. The original measured about three feet by three and a half feet. Above is shown the cartoon for the painting.

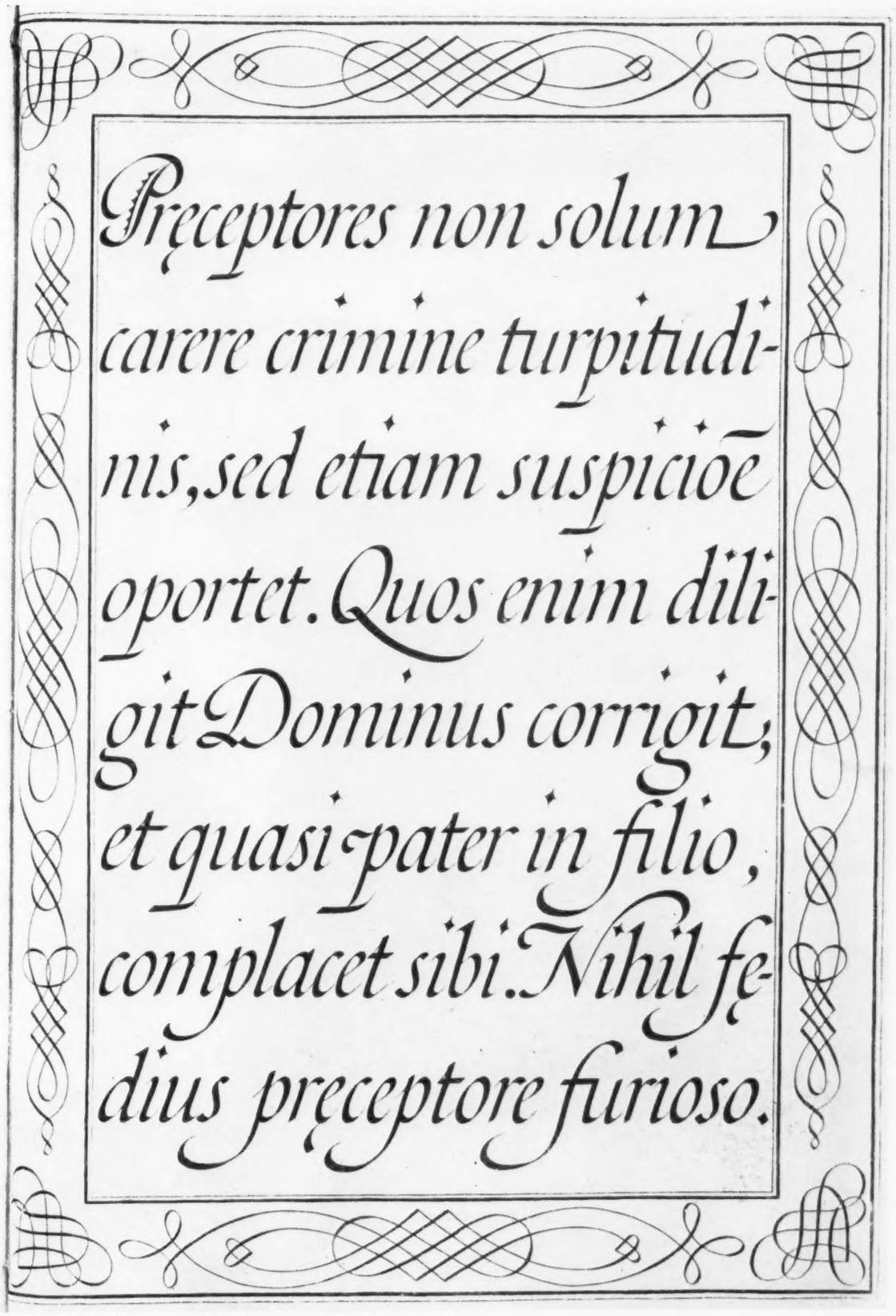
THE POET'S CORNER, WESTMINSTER ABBEY

FROM A WATER COLOR PAINTING BY HUGHSON HAWLEY

PENCIL POINTS
(December, 1931)

Pencil Points Series of Color Plates

This beautiful water color drawing by Hughson Hawley, dean of architectural renderers in this country, was originally made in 1883. The reproduction here shown was made from an exact copy done by Mr. Hawley in 1916. The original measures 23" x 30" and shows a corner of Westminster Abbey that has been overlooked by most artists. Mr. Hawley, who has made thousands of drawings in his career and who has done work for most of the leading architects of America, is still actively engaged in the profession of rendering. His work formed the subject of an article in the December 1928 issue of PENCIL POINTS.



Courtesy Metropolitan Museum, New York

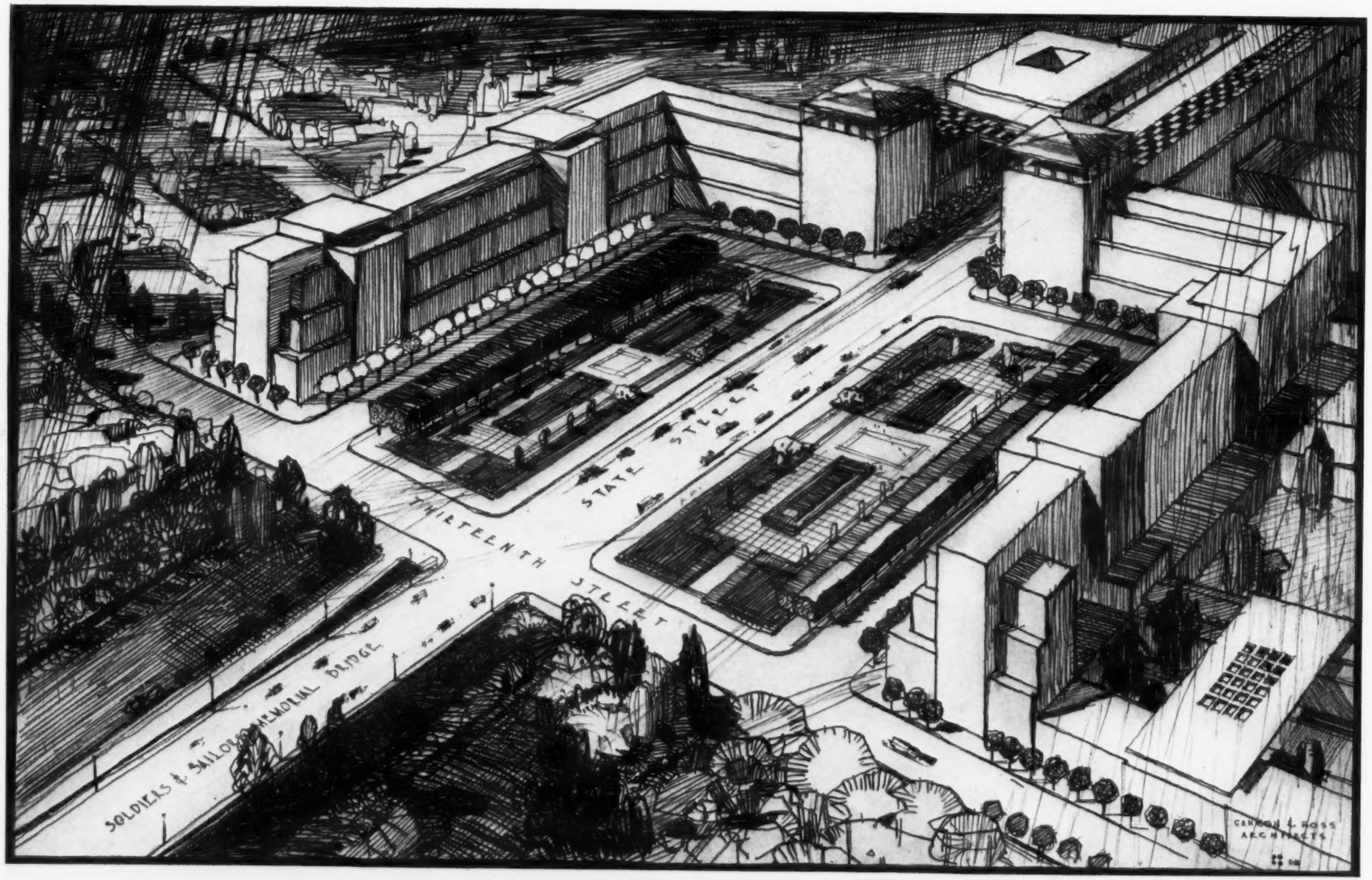
A PAGE FROM "ARTE NUEVA DE ESCRIBIR," BY PEDRO DIAZ MORANTE

A FINE EXAMPLE OF SCRIPT FROM A SPANISH "WRITING BOOK" PUBLISHED IN MADRID IN 1776

PENCIL POINTS FOR DECEMBER, 1931

VOLUME XII NUMBER 12

This plate shows a page from an eighteenth century writing book such as was used by students of writing and lettering. The original was printed from a copper engraved plate. This example, like that shown in the November issue, will be included, together with a number of others, in Egon Weiss' book, "The Design of Lettering," soon to be published.



PROPOSED PLAZA AT THIRTEENTH AND STATE STREETS, HARRISBURG, PENNSYLVANIA—GEHRON AND ROSS, ARCHITECTS

FROM A PEN-AND-INK DRAWING BY ERNEST BORN

PENCIL POINTS FOR DECEMBER, 1931
VOLUME XII NUMBER 12

This plate shows the suggested scheme for the treatment of the east termination of the Soldiers' and Sailors' Memorial Bridge at Harrisburg for which Gehron and Ross were the architects. The original drawing measures 12" x 8¾" and was done in pen-and-ink on Bristol board.

Misadventures of a Draftsman

5—Bug-House Camp

By George H. Allen

After I got the job I went down to see John Deegan who shared a little two-room apartment with me and told him to forward my mail in care of the United Engineering Laboratories at Wilmington, Delaware.

"So you got the job at the United?" he said. "Well, she's a bug-house camp proper."

I had been working in Philadelphia about a year and a half now, after getting my sheepskin at Pennsylvania. Work was plentiful the summer I got out of school but since then it began to taper off gradually, until by now a good job was a hard thing to get. Up until a month ago I had been working in a small office at 14th and Chestnut Streets and was getting along fairly well. Being the only draftsman there, I did pretty much as I pleased, as long as I got the work out on time. At 9:30 in the morning you would find me swinging in the revolving doors and I usually took a couple of hours for lunch. If I had an errand to do in the afternoon, I would simply slip on my coat, tell the stenographer I'd be back in about an hour and that's all there was to it. But it wasn't like that all the time. Many a night, during that period when the contractors would be pushing me, I would have to get a quick bite to eat down at Boothby's, and hop right back to work. Then again, being all alone was somewhat difficult at times, for if a tough problem came up (and they came up quite often) I would have to make the best of it, or see the boss. I hated to have to go to him as that was what he was paying me for and he was usually busy himself—whenever he wasn't out playing golf with Verne Welch, who had the bug as bad as the boss did.

I remember one time when I was doing some detailing on a church at 3/4" scale. It was Georgian and over the main entrance, accordingly, was a large portico supported by four limestone columns. I had a preliminary framing plan from the steel people and managed to work out most of it successfully, hanging the larger pieces of cornice stones and anchoring the rest with strap anchors. But the soffit stumped me. It was composed of sunken panels or coffers, in the middle of which were recessed lights. The steel had been set rather low but it worked out splendidly with the steel framing which held the entablature. The beams which were giving me trouble framed into this steel. If I raised them to the height I needed, we would have to introduce blocking, which in turn would weaken the whole fabrication. If I kept the soffit at the elevation called for I discovered that there wouldn't be enough room for the electricians to install the lights. I couldn't do much without seriously affecting the architecture so I went to the boss. Things like that would come every once in awhile, whereas if there was another fellow working with me, we could go over these problems together and, as two heads are better than one, have it solved in no time at all.

At any rate, after I finished the church, things began to slow up and for six weeks I did nothing but sit around and diddle-daddle or clean out the files. Finally, in despair, the boss decided to take that trip to Europe which he had been planning for thirty-five years and was kind enough to give me a month's notice. Things on the outside, in the interim, were getting worse. We were getting then a light touch of the depression that was to seize the country in a vise-like grip. All cities of 10,000 or up were to feel the effects of over-building and fly-by-night developments. Building was virtually at a standstill, except in the larger cities, particularly New York. I had long been casting my eye in this direction but I didn't think I had enough experience as yet to tackle it. The only firms which seemed to be expanding and enlarging were the industrials. They were kept astonishingly busy putting up here a new factory, there an addition, or perhaps a warehouse with terminal sidings or administration buildings. The program seemed endless. The companies seemed to vie with one another in their elaborate "expansion programs" and others, not to be outdone, had their own drafting departments with a dignified lineup of steel engineers, plumbing and electrical specialists, mechanical engineers, and architects. Quite a number of my friends were with such firms as these and claimed they paid as well, if not better, than the architectural offices.

However, I just couldn't seem to stomach the idea of "industrializing" myself. I couldn't associate a Corinthian capital with a bare factory façade having miles of swinging sash. The only trace of architecture you would find in their buildings was, usually, the main entrance of whatever they were executing and that was, as a rule, terrible. Nevertheless, I was out of work and time was wearing on —so was my hat. I had been wearing a soft, brown felt now for three years. I think it was back in 1926 when I bought it and it soon grew to be an indispensable item wherever I went. It fitted me comfortably and I could throw it around as I pleased. For this reason, also because of its age, it finally acquired the most peculiar shape. Where the brim should go down it went up, the ribbon had become frayed and the crown was neither round nor square nor oblong. It just didn't have any particular shape at all.

I guess that was the reason that I noticed people on the streets looking at it, until finally it became so bad that I purposely kept away from the crowds. If there was an alley handy, I would duck into it rather than go up the main streets. But it got me my new job; I must not forget to tell you about it. After I filled out the required routine papers at the United offices and was picking up my hat to go, Mr. Sneed remarked about the misshapen felt.

"I hadn't seen a hat like that in ten years, until you came into the office. It tickled me."

That's how I got the job at what Deegan said was a bug-house camp proper.

Wilfred Sneed was a stocky man and hard of face except when he laughed, which was very seldom. I afterwards learned that he came from Boston, where he had worked in various old and dusty offices ever since he was a youngster. His eyes were a slaty grey. The first time I met him, they forcibly struck me as being made of chilled

steel. At any rate, the simile sounds good and I thought I would mention it. He was boss, *per se*, of the U. E. Laboratories and his official title was Chief Draftsman. He hired and fired and he was good at both. His force was tremendously large, being up around 250 men. They sat behind huge drafting tables which were lined up four rows deep from the windows. All of the new men took what was left, so of course I drew one in the last row where it was so dark that I had to have a light lit all the time.

Within two days, however, I was changed to another place. Understand, my duties here were those of an architectural draftsman. There was only one other there, Hughey Charlton, who was a registered man and a nice fellow too. He was in the row next to the windows so I was shifted to the table in back of him. This suited me perfectly and I began to feel that I might like the place after all.

I continued to live in Philadelphia and commuted on the train to Wilmington on a monthly ticket. I don't think I could ever live in this town although it was a nice enough place. For one thing, it was too congested. Say what you will about Philadelphia, it has a certain mellowed warmth about it that emanates perhaps from its old red-brick fronts. Another reason was that I intended to keep this job only temporarily, since I saw that if I stayed here I was in line to become fully "industrialized." By living in Philadelphia I could keep in touch with my friends and with possible openings, if there happened to be any, very easily.

But let me go on about Wilmington. I soon discovered that one of the important features, to the gang in the office, was Sam's. Here, foamy steins of beer were shoved across the counter at you in exchange for twenty-five cents. You couldn't get any hard liquor here but you didn't need any. The beer was the most powerful foam I ever sampled. My fondness for beer, I suppose, was acquired from my college days when we would break out of the atelier around twelve o'clock and never failed to stop in at the Rathskeller for a *seidel* or two. It wasn't uncommon at Sam's, though, to see one of the stolid Swedes guzzle a couple pints of it and then stump out of the bar humming "Vortland" aloud, a thing only done by Swede draftsmen when under the influence of acute patriotism, or alcohol, or both. The man in the white coat back of the bar was a fellow of imagination. He rigged up a piece of iron pipe for a foot rail. He cut gaudy pictures of movie women from magazines and pasted them on the wall. He thoughtfully provided a huge cash register with a bell on it that sounded like a *guthammer* gong, beautifully deep and pealing. There was a bowl of pretzels, too, a small free lunch counter, and a busted slot machine.

To stand in the corner of the room on a Saturday evening and listen to the place going full blast was to recall the locker room at the Northfield Country Club, during the spring Prom.

But all of this is incidental to the place where I spent eight hours a day. I started to work there in October or November, I disremember the exact date. The office building was an ancient three-story affair, occupying about a hundred-foot front. Its architecture was of problematical merit, with round-headed windows and a projecting cornice which fortunately provided shelter for a flock of pigeons. I often looked at this monstrosity and wondered what would happen if a piece became loose and fell.

The office was about quarter of a mile from the railroad station and on mild days it afforded a nice walk in the air. On days when it rained, however, I would jump aboard one of the red and white trolleys which ran down by the station. And what rickety affairs they were, clanking and clanging down the street. It was almost impossible to read a paper in them, because you invariably jumped down two lines as you were reading, or back one. At exactly ten minutes to nine I would enter the arcade, which was banked on either side by rows of little shops, displaying everything from jars of colored candies to the latest thing in a riding habit. Once in a while I would stop and look at the windows, but as a rule I would go direct to the elevators. Our office was on the eighth floor where we had one whole side of the building. The first thing to greet you, when you came in the door, was a large card which contained the daily dozen for the draftsmen. Its purpose was to inspire us to plunge happily into our work each morning, remembering the following:

1. Smile until the smile sets for the day.
2. Affirm you are going to be successful.
3. Think optimisim until you feel the exhilarating conviction that it's great to be alive.
4. Mentally visualize yourself doing a big day's work.

The other eight were all like that but whether the gang followed these platitudes was a question. The next thing which you did (you did all of these things, in their proper order, automatically) was to punch the time clock. My number was 137. I would pull out 137, slip it in the clock and—bong! It was very embarrassing to be late because everybody would be busily working and the room would be deadly quiet—then to have this bell suddenly disturb the silence was terrifying. The effect would be electrical, there would be a spontaneous raising of smiling faces and low whistles as you made your way to your desk. It was enough to make you wake up in the middle of the night with the jitters. After this you were invariably called on the carpet by the boss. He would open a book and turn to your name where he kept a record of the times you were late, absent, or sick. He based your rating on percentages, which were worked out in some intricate manner.

"Do you know, Reynolds, that you are eight minutes late? This brings your average down, I would keep an eye on this lateness if I were you." Then with a nod you would be dismissed.

How different this was from the old office. I would have gladly left the next day if it were possible, but I had to bide my time and grin and bear it. Old Sneed was getting worse all of the time. Someone said that it was his dyspepsia but, whatever it was, his cantankerousness was getting overbearing. You would be working over a drawing and without a sound he would sidle up to you, silently observing your work. Then he would leave without a word. If there were any comments to be made, he would tell Jorgenson, the assistant, who would duly drop down your way and notify you to rectify the drawing. In one instance, I had, in several places, placed my dimension figures below the dimension line and it was almost no time before Jorgenson was running down to my table to tell me: "The figures *always* are to be above the line." Then he would invariably finish with, "as is consistent with our practice."

There is one thing that I almost forgot to mention. About two weeks after I started to work there Sneed collared me and told me to stay that night as he had something he wanted to go over. I wondered what it was but I stayed after all of the fellows left. After the last one disappeared through the door, he stuck his head out of his office and called for me to come in. On going in I

found him seated at his desk and he offered me a cigar and pushed a chair my way.

"Reynolds, you're an architectural man and I understand you can make satisfactory working drawings."

I told him I could. "Well, how would you like to draw up a set for me?" he asked.

"Why, very much, Mr. Sneed, and I can use the money very well just now," I replied.

Reaching in a drawer of his desk, he pulled out a roll of drawings with rough sketches on them, which he evidently had prepared. He went through them, explaining the major details and requirements, which immediately appealed to me. This was architectural drafting, not steel beam details and sump-pit sections, which seemed to be all that this office did. Finally, after talking over the work that would be required, he turned to me and said:

"Well, Reynolds, there's a good job for you to do. By working on it at nights you should have it finished in about two weeks." I nodded. Then applying another match to the stump of his cigar, he added: "Now what do you figure the job is worth to you?"

I paused. He was offering the job to me instead of a practicing architect for the prime purpose of saving money. Withal, I figured it was at least worth a hundred even, which was considerably less than the standard fees, but I didn't want to offend him should he think this too high. I told him I would accept his offer.

"How would thirty-five dollars suit you?" he asked.

"Why—I guess it's all right." His ridiculous offer left me stunned, then quickly, "We'll let it go at that."

"Fine," he said, rubbing his hands. "Now I'll need a foundation plan, a first and second floor plan, the elevations, and some necessary detailing. Let me know if you need more information. Make it a bang-up job, eh Reynolds?"

When I told the boys in the office about it, they gave me one look and fell upon each other laughing. Surprised, I stood there in a quandary. What did they find in this to be so humorous? I knew the remuneration was very small but then this was better than nothing and, again, I needed the money. As soon as they could get control of themselves, they apprised me of the facts. The boss, it seems, had been trying for months to get someone to do this job, but they all tactfully turned him down. He had gained an unsavory reputation, because, several times before, he had houses drawn up but before he was finished the poor draftsman and Sneed always got tangled up in a row. From then on, the draftsman led a dog's life. But I couldn't back out now. I worked hard every night and had the job done in ten days. I gave the drawings to Sneed, he examined them without a word of comment and said he would give me the money at the end of the week. But when the end of the week came, he didn't even come near my desk, nor the next week, nor the weeks thereafter. Finally I mentioned it to him and he looked at me sort of flustered and said he would have it for me soon. He had been having some "tough luck," as he expressed it.

Needless to say, he never gave it to me—I suppose he forgot all about it, but I didn't. Then the bad news broke. They were laying off ten men and as these included those who were taken on last I found myself among them.

"I'm sorry, Reynolds," Sneed said, "but that's the orders from the front office."

"O.K., chief," I replied, "I guess I'll have to look around again, that's all."

Finally, the last day rolled around. I was over to the water cooler, getting a drink, when I heard my name called. Turning around, I saw Sneed motioning for me to come into his office. I went into it and sat down in a chair next to his. He explained that he thought I might be able to get a job with a man who was a friend of a friend of his and offered to give me a letter of introduction. But I refused, I told him that I was going back to Philadelphia to work.

"Just as you say," he replied, turning to some papers implying that that finished the conversation.

"And listen, chief," I said, leaning on his desk, "see if you can scare up that thirty-five today, will you?"

His jaw dropped and his slate-grey eyes popped in surprise. I enjoyed the jolt this seemed to give him, tremendously. I told him that if he wanted to do me any favors, he could clean this off the slate. I stuck around that night until he finally paid me off. And the last I heard of him, he was still chief in that "bug-house camp proper."

OVERDOOR DECORATION FOR A COUNTRY RESIDENCE, BY GAETANO CECERE

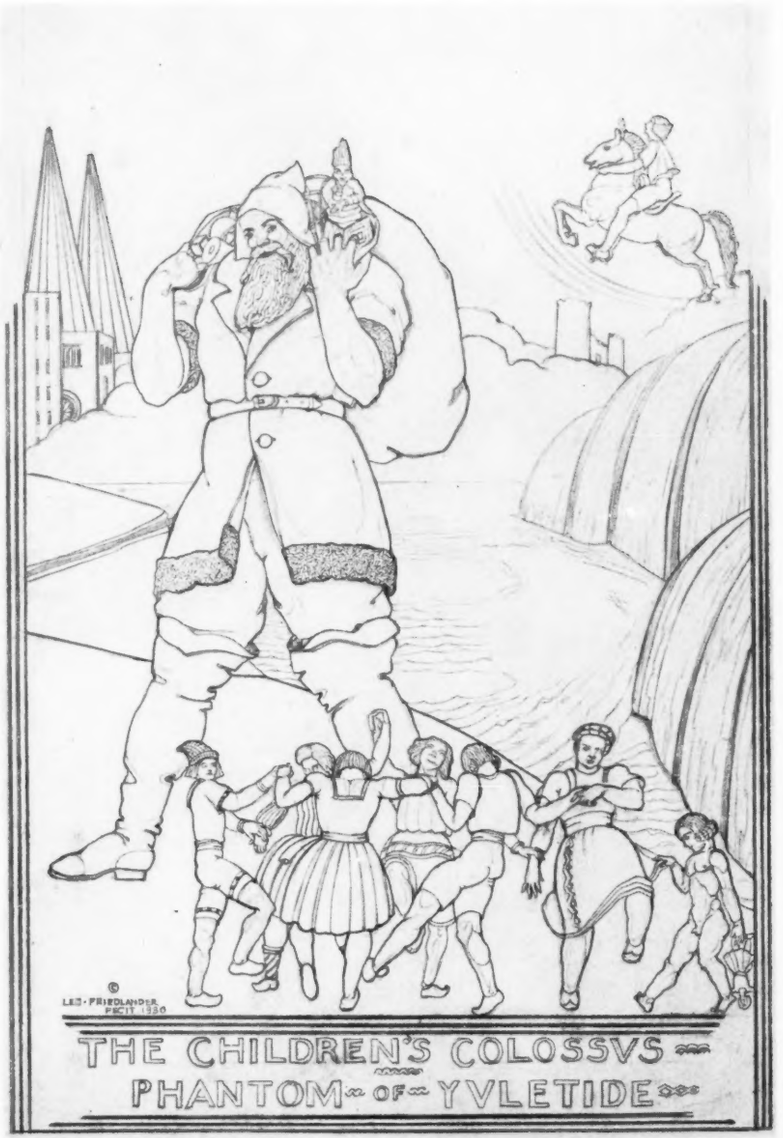
Cross and Cross, Architects

"REFUGEES"—FROM AN OIL PAINTING BY DONALD M. MATTISON—FELLOW IN PAINTING OF THE AMERICAN ACADEMY IN ROME
INCLUDED IN THE NOVEMBER EXHIBITION OF THE WORK OF RECENTLY RETURNED FELLOWS AT THE ARCHITECTURAL LEAGUE OF NEW YORK

Selected Drawings by Leo Friedlander

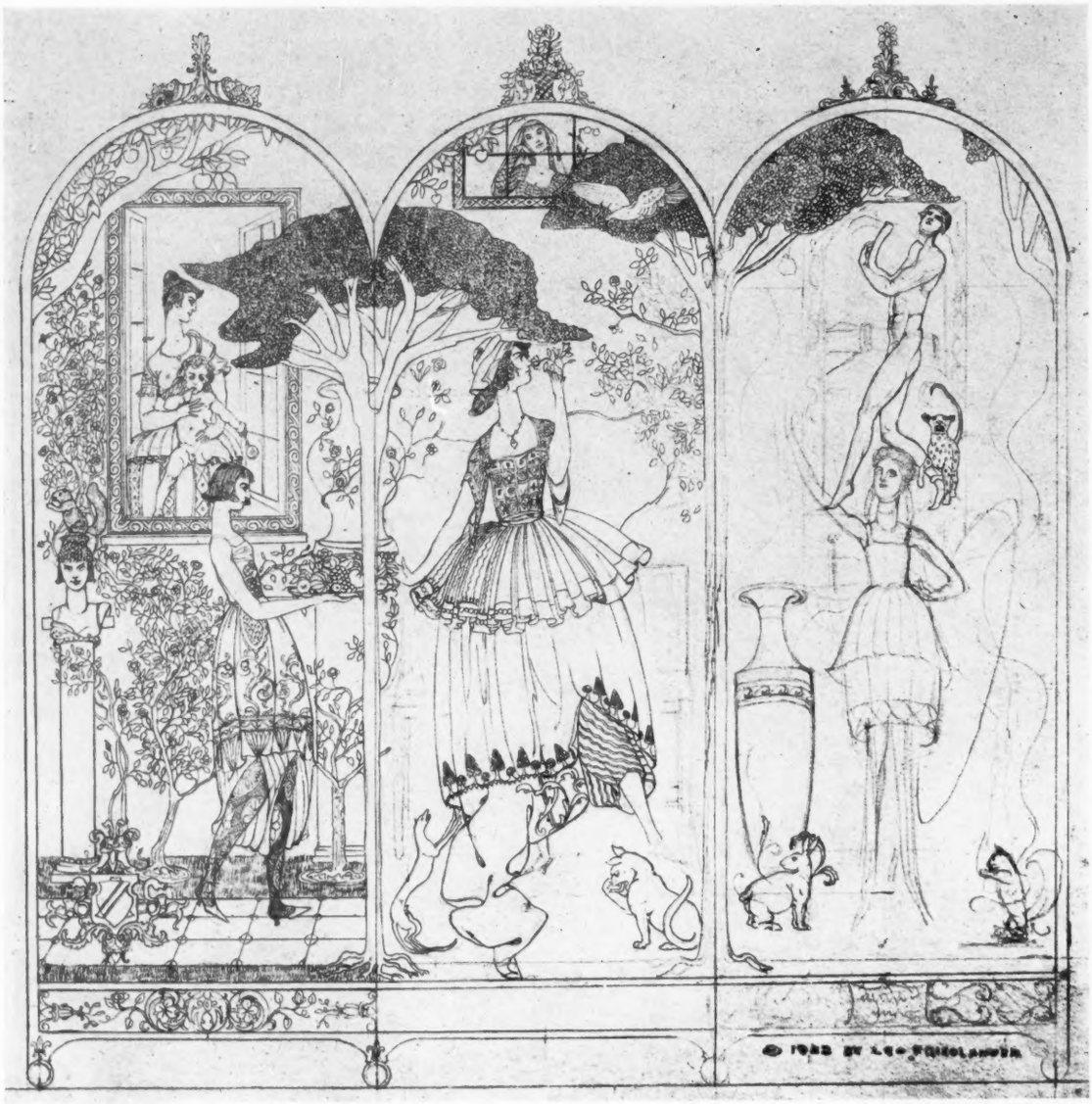
In Which the Subject Matter Pertains to the Month of December

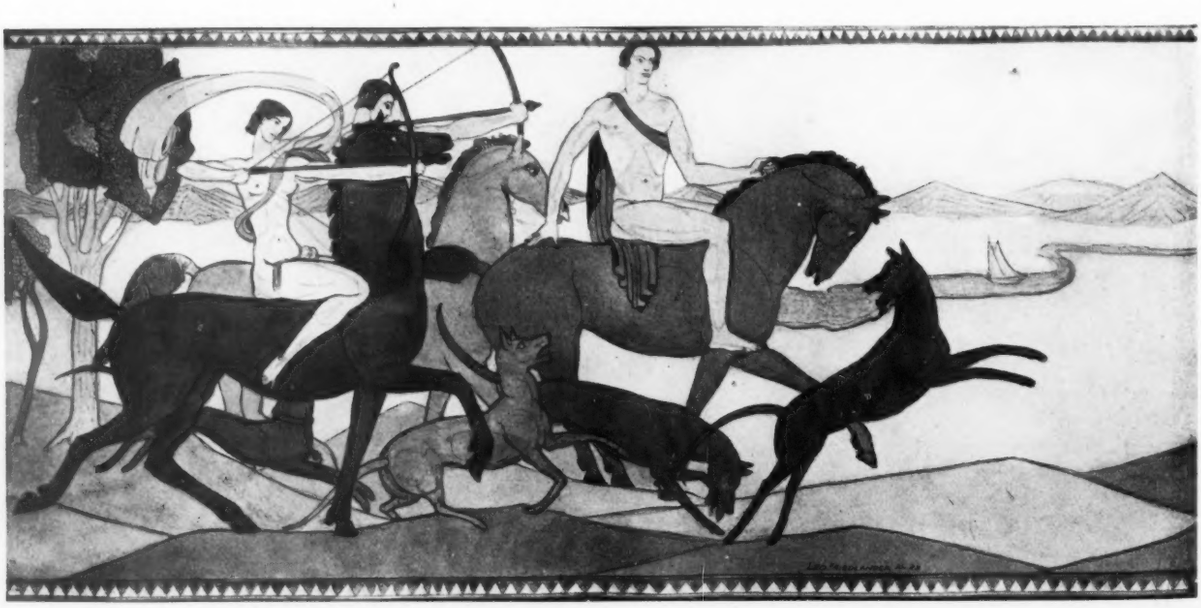
INCLUDED IN THE NOVEMBER EXHIBITION OF THE WORK OF RECENTLY RETURNED FELLOWS AT THE ARCHITECTURAL LEAGUE OF NEW YORK



TWO CHRISTMAS GREETING CARDS BY LEO FRIEDLANDER

EPISODES IN THE LIFE OF CHRIST





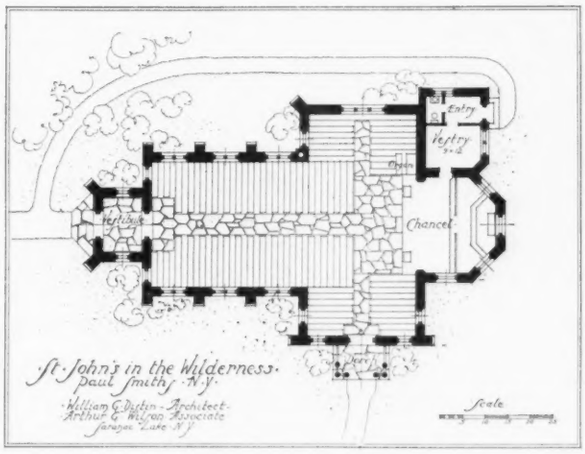
FROM DECORATIVE DRAWINGS BY LEO FRIEDLANDER

Progressive Studies for a Small Church

St. John's in the Wilderness, Paul Smith's, New York

William G. Distin, Architect—Arthur G. Wilson, Associate

The drawings reproduced on the following three pages show three steps in the design of the small Church of St. John's in the Wilderness. The original church, partly of frame and partly of log construction, was entirely destroyed by fire about three years ago. When the architects were commissioned to design a new building to replace it the committee desired a building only a trifle larger than the old one and of practically the same plan. Their first sketches, therefore, were for a log building which was well thought of by the committee but consideration of the fire hazard finally determined a change to stone. The architects then made sketches for the three schemes in stone shown hereafter. A desire on the part of the committee to keep the new building as much on the lines of the old as possible successively eliminated the tower scheme and the one with tower and spire. The final design, in which the bell is housed in a small belfry on the roof at the crossing of nave and transept, is shown by the photographs of the completed building.



PLAN OF ST. JOHN'S IN THE WILDERNESS

The church, as built, has outer walls of rough local granite showing all weathered faces and with a fine, subtle play of color. The trim is of Indiana limestone. The main walls have a core of 4″ hollow tile and the entire interior is of a light-colored Malone stone laid in random ashlar and in units from 4″ to 8″ thick with long horizontal joints. The main floor is reinforced concrete slab construction finished with irregular stone flagging. The altar is of the same stone used on the interior walls, laid in large slabs. The roof is trussed of heavy, hand-hewn timber, covered on the outside with rough, heavy, graduated slate of colors selected to harmonize with the stone of the walls. Lighting fixtures of wrought iron were also designed by the architects.

The church itself has a long and interesting history and was founded over fifty years ago by the late Dr. Edward Livingston Trudeau. Many people identified with the early history of the Adirondacks, and who were pioneers in the philanthropic enterprises for which the region has become celebrated were memorialized in the little old church by windows or other ecclesiastical ornaments, all of which were destroyed in the fire. With the church are intimately associated the names of Anson Phelps Stokes, Whitelaw Reid, the Byrd, Hoffman, Penfold, and Riggs families, Dr. Walter B. James, and others too numerous to mention. There were few places of worship on this continent that had such an intimate atmosphere as the old church whose beauty and simplicity seemed in perfect harmony with the mountainous Adirondack region.

The architects of the new structure have essayed to retain this atmosphere and have, in the opinion of those who have seen the finished building, succeeded admirably. The rough stone and slate of the exterior fits in appropriately with the woodland surroundings so that the effect is quite as harmonious as that of the older structure. An examination of their progressive studies will indicate how they approached the problem.

TWO PHOTOGRAPHIC VIEWS OF THE CHURCH AS COMPLETED

SCHEME A—CHURCH OF ST. JOHN'S IN THE WILDERNESS, PAUL SMITH'S, NEW YORK

WILLIAM G. DISTIN, ARCHITECT—ARTHUR G. WILSON, ASSOCIATE

Above is shown the front elevation and below, the side for this scheme.

SCHEME B—CHURCH OF ST. JOHN'S IN THE WILDERNESS, PAUL SMITH'S, NEW YORK

WILLIAM G. DISTIN, ARCHITECT—ARTHUR G. WILSON, ASSOCIATE

A smaller tower with a spire has replaced the square tower shown with scheme A.

SCHEME C—CHURCH OF ST. JOHN'S IN THE WILDERNESS, PAUL SMITH'S, NEW YORK

WILLIAM G. DISTIN, ARCHITECT—ARTHUR G. WILSON, ASSOCIATE

A still further modification, with no tower, more nearly approaches the final design.

KENNETH CLARK

1884-1931

It is with heartfelt sorrow that we record the fact that the work of Kenneth Clark, architect and architectural photographer, has been brought to an untimely end. His death, in Washington, D. C., on October 31st, 1931, after a brief illness, terminates the career of a talented artist, in the midst of invaluable services to the architectural profession. For thirteen years Kenneth Clark has been the photographer for *The White Pine Series of Architectural Monographs* and its successor, *The Monograph Series*.

Mr. Clark has had a long and varied architectural experience in many of the best offices in the Southwest and in New York City. With a degree from Columbia University, he received his architectural training under the guidance of H. Van Buren Magonigle, Henry Bacon, and Bertram G. Goodhue. This experience plus real artistic ability, which was his birthright, made him particularly well fitted to serve the members of the profession as an expert draftsman and the recorder of their executed masterpieces.

Clark's sense of composition and values and his unerring faculty of bringing out the architectural quality of the subjects which he photographed have given an interest and charm to his work which has been recognized by all who have seen his published records of contemporary architecture and the buildings which were erected before 1810.

Architects, the architectural press, and *The Monograph Series* have made full use of Mr. Clark's ability to bring out the pictorial quality of his subjects, in addition to the architectural story. None but an architect would have made the pictures published in *The Monograph Series;* only an artist could have made the prints which he produced merely for his own pleasure. Landscapes as fine as any paintings, pictures of the sea and ships—for he had the strong, clean heart of a sailor—and snapshots of the thrilling ruins of Mayan civilization in Central America are all to be found in his collection of prints. Clark was a master of the technique of his art!

The qualities of his work were but a reflection of the man himself. His innate soul of artistry and romance is to be read throughout his photographs. He was modest, in the extreme, in connection with his work and his charm of manner and intelligent interest in the work of the profession made him a welcome visitor in many architects' offices and the helpful companion, in the field with and in the sanctum of the publishers of Early American Architecture.

Kenneth Clark's work is well done. It is with deep regret that we realize a loyal and affectionate friend and a fine artist has been taken from our midst. His memory will live forever!—*Russell F. Whitehead.*

COMPETITION FOR NEW YORK STATE ARCHITECTS

The Architects' Emergency Committee of the Region of New York will conduct a competition for the design of a membership certificate in the New York State Council of Registered Architects to aid unemployed draftsmen.

The competition is open to architects and draftsmen of both sexes living or working in the State of New York. One design only may be submitted by a contestant.

There is a first prize of $100, a second of $50, a third of $35, a fourth of $25, and ten others of $20 each. H. Van Buren Magonigle, former president of the New York Chapter of the American Institute of Architects, is chairman of the jury. Other members are: Frederick Mathesius, James F. Bly, William E. Haugaard, Julian Clarence Levi, Elmer Adler, Chester Price, August Ruhling.

Designs will be judged upon the merits of their composition as a whole, their decorative embellishments, if any, and the excellence of their lettering.

Copies of the program may be had upon application to the Architects' Emergency Committee, 115 East 40th Street, New York.

ARCHITECTURAL FORUM ANNOUNCES COMPETITION FOR MAGAZINE FORMAT

The Architectural Forum, 220 East 42nd Street, New York, has announced a competition for "a magazine format which most effectively expresses the ideas and ideals of the distinguished profession *The Architectural Forum* is privileged to serve."

Prizes will be awarded as follows: First prize, $500.; Second prize, $250.; Third prize, $100.; Five honorable mentions of $50. each.

The competition is open until December 31st to all architects, photographers, artists, draftsmen, and designers, as individuals or firms. For further information address Competition Secretary, *The Architectural Forum.*

APPOMATTOX MONUMENT COMPETITION

An Act of Congress, approved June 18, 1930, provides: "That for the purpose of commemorating the termination of the War between the States which was brought about by the surrender of the army under General Robert E. Lee to Lieutenant General U. S. Grant at Appomattox Court House, in the State of Virginia, on April 9, 1865, and for the further purpose of honoring those who engaged in this tremendous conflict, the Secretary of War is authorized and directed to acquire at the scene of said surrender approximately one acre of land, free of cost to the United States, at the above-named

place, fence the parcel of land so acquired or demarcate its limits, and erect a monument thereon."

An Act of February 23, 1931, reads, in part, as follows:

"For every expenditure for or incident to the work of securing a design and the preparation of plans and estimate of cost for a monument at Appomattox Court House, Virginia, * * * $2,500: Provided, That the plan and design of such monument shall be subject to the approval of the National Commission of Fine Arts."

In accordance with the terms of the above Acts, The Quartermaster General, under authority of the Secretary of War, invites architects of standing and reputation who are citizens of the United States to submit designs for this monument and a landscape treatment of the proposed site. All those intending to compete should make application for the program and accompanying drawings to The Quartermaster General, Munitions Building, Washington, D. C.

The designs in this competition must be submitted to the Office of The Quartermaster General, Munitions Building, Washington, D. C., not later than 12:00 o'clock, noon, on Thursday, January 7, 1932.

The Jury of Award will consist of three members, to be appointed by The Quartermaster General from a list of architects, not in the Government Service, and members of The American Institute of Architects.

This competition has been approved by the Standing Committee on Competitions of the Institute, Egerton Swartwout, Chairman.

THE JAMES TEMPLETON KELLEY FELLOWSHIP IN ARCHITECTURE

This Fellowship with an income of $2,500 for one year, more or less, as seems best, was established in 1929 by Mrs. James Templeton Kelley in memory of her husband. The Fellowship is administered by the Boston Society of Architects (a Chapter of the American Institute of Architects) and is to be assigned to an individual of proved ability, whether a student, an instructor, a draftsman, or a practicing architect, for foreign travel for the pursuit of advanced studies in Architecture. It is open to any man or woman residing within the area under the jurisdiction of the Boston Society of Architects (Maine, New Hampshire, Vermont, and Massachusetts), preferably a citizen of the United States of America, and is to be awarded annually on the basis of evidence submitted by the applicant, and otherwise secured by the Committee on Education of the Boston Society of Architects. The Executive Committee of the Boston Society of Architects makes the award on the recommendation of the Committee on Education of the Society. The holder is eligible for reappointment. If, in any year, no suitable candidate appears, the sum available is to be set aside as a separate fund which may be used to defray expenses incurred in publishing the results of the work produced by any of the James Templeton Kelley fellows, or for other purposes connected with the Fellowship. In any year, the Committee may reserve a part of the income, not exceeding $500, to defray expenses incurred in the administration of the Fellowship.

Applications for the year 1932 should be in the hands of Niels H. Larsen, Secretary of the Committee on Education of the Boston Society of Architects, 814 Statler Building, Boston, on or before January 18, 1932, and should state the applicant's age, education, experience, present occupation, and suggestions for his work abroad.

SKETCH CLUB ATELIER

The Sketch Club Atelier, under the direction of A. Thornton Bishop, opened its 6th season at the Art Center, 65 East 56th Street, N. Y., on October 20th.

Despite the inactivity prevalent in the architectural line, the class had an enthusiastic enrollment, many students being landscape architects.

As in past years, Mr. Bishop is concentrating on visualization, pictorial composition, and architectural indication.

NO GUY LOWELL COMPETITION THIS YEAR

Due to economic conditions both here and abroad, the Committee on the Guy Lowell Memorial Competition in Architecture has decided, with great reluctance, not to hold the Competition in 1932, with hopes of resuming the Competition next year.

DETROIT ARCHITECTURAL BOWLING LEAGUE NOTES

	W.	L.
Albert Kahn, Inc.	15	9
Hubbard & Wagschal	14	10
Malcomson & Higginbotham & Trout	13	11
Weston & Ellington	13	11
Donaldson & Meier	12	12
McGrath & Dohmen	12	12
Robert O. Derrick, Inc.	10	14
J. Ivan Dise	7	17

Individual High Score—1 game—Gleasman (R.O.D)—257

Individual High Score—3 games—F. McCormick (M&D)—672

Team High Score—1 game—Hubbard & Wagschal—1042

Team High Score—3 games—McGrath & Dohmen—2886

Leading 200 Scorer—Golder (M&H&T)—13 (Out of 24 games)

High Individual Averages:

	Games	Player	Average
1.	21	Kalsched (AK)	195
2.	24	Stegkamper (JID)	193
3.	21	Jolson (ROD)	193
4.	24	Golder (M&H&T)	193
5.	24	F. McCormick (M&D)	191
6.	24	Gleasman (ROD)	189
7.	18	N. Krecke (H&W)	188
8.	20	Ozias (W&E)	187
9.	18	Bruny (W&E)	185
10.	24	Nygren (D&M)	185

NOTES ON COLOR PLATE

William S. Rice, who made the color print, "Old Bridge at Chartres," reproduced in this issue on page 883, gives the following technical notes which may be helpful:

"In making this block print, Battleship Linoleum of ¼" thickness was used for the 'key block' from which the dark outlines and masses of the design were printed.

"The design itself was traced with a Japanese brush and India ink from the original water color sketch. Japanese tissue paper was used for this purpose.

"This tracing was then pasted face downward onto a linoleum block. With a sharp knife and small gouges the light portions of the design were cut away leaving the

(Continued on page 46, Advertising Section)

SIDE ELEVATION OF THE MODEL OF WINNING DESIGN—JOSEPH LEA GLEAVE, ARCHITECT

Final Design Selected for Columbus Memorial Lighthouse

J. L. Gleave of England has been chosen winner in the second and final stage of the Columbus Memorial Lighthouse Competition which brings to a close the largest architectural competition that has ever been held. This memorial will be constructed at Santo Domingo, capital of the Dominican Republic, and will mark the location of the first permanent European settlement in the New World, where Columbus lived, and where his sons held sway as first governors for Spain in this hemisphere.

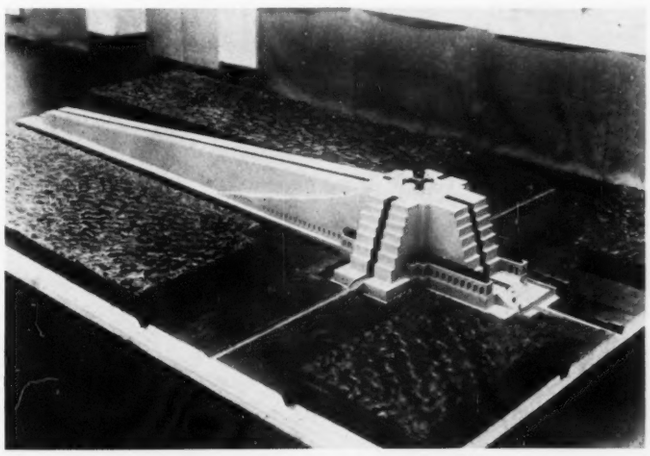
Announcement of the award to Mr. Gleave, along with others, was made by the Chairman of the International Jury of Award on October 17th from Rio de Janeiro, where the designs were examined and judged. Second prize, $7,500, was awarded to Donald Nelson and Edgar Lynch of the United States; third prize, $5,000, to Joaquin Vaquero Palacios and Luis Moya Blanco of Spain; and fourth prize, $2,500, to Theo. Lescher, associated with Paul Andrieu, Georges Defontaine and Maurice Gauthier of France.

The other competitors in the second stage each received an award of $1,000, and were as follows: Louis Berthin, Georges Doyon, and Georges Nesteroff; Josef Wentzler; Corbett, Harrison, and MacMurray (Robert P. Rodgers, Alfred E. Poor, W. K. Oltar-Jevsky); Pippo Medori; Douglas D. Ellington; and Will Rice Amon.

The Jury of Award consisted of Horacio Acosta y Lara of Uruguay, Chairman and representative of Latin America on the Jury; Eliel Saarinen of Finland, representing Europe, and Frank Lloyd Wright of the United States representing North America. Hon. Getulio Vargas, President of Brazil, the Cardinal of Brazil, members of the Cabinet and of the diplomatic corps accredited to the Government at Rio were present at the announcement of the awards, while the Government of the Dominican Republic was represented by a special delegation headed by the Hon. Tulio M. Cestero, who has long been a moving spirit in the project.

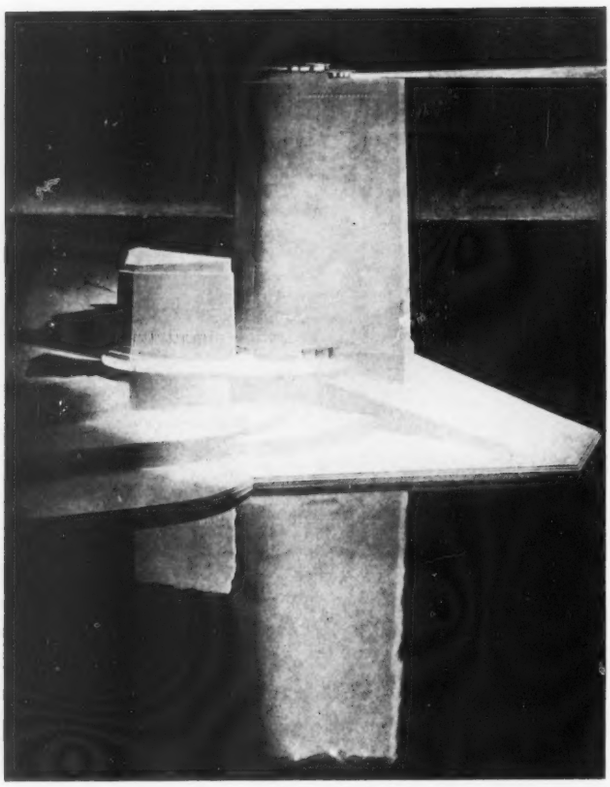
The project for a memorial to honor the memory of Columbus first received world wide attention when a resolution was adopted at the Fifth Pan-American Conference recommending the construction of a memorial in the Dominican Republic to honor the Great Discoverer, the funds for the construction of which were to be collected by means of governmental subscriptions from the nations of the New World and any other nations of the world which cared to contribute, and by means of general subscriptions throughout the various countries.

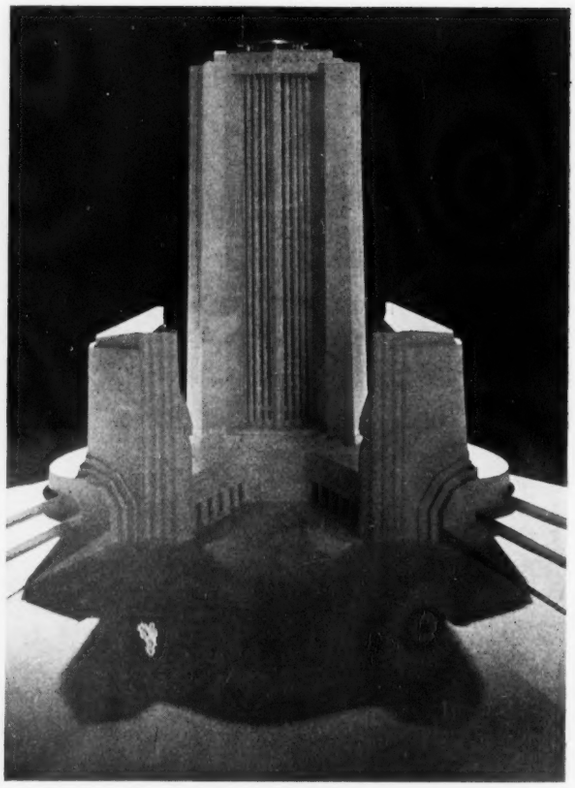
In the first stage of the competition 455 architects from practically all nations of the world took part. Ten designs were awarded prizes of equal weight in the first stage, the judgment being held at Madrid in 1929, where an exhibition of all the projects was held following announcement of the awards. The authors of these ten designs were eligible to recompete in the second stage. J. L. Gleave of England has been awarded the final prize, and will be the architect for the Memorial.



GENERAL VIEW OF MODEL OF WINNING DESIGN
J. L. GLEAVE, ARCHITECT

The International Jury, in commenting on the designs submitted in the Competition, and in granting the first prize to Mr. Gleave, stated:





DESIGN PLACED SECOND—FINAL COMPETITION FOR COLUMBUS MEMORIAL

General Plan, Perspectives, Drawings and Elevation by Donald Nelson; Interior Architecture Including Design of the Frieze and Decorations of the Tomb Chamber and Rendering of the Sections by Edgar Lynch; Design of Exterior Mass of Memorial, Model, and Sculpture by Oskar J. W. Hansen; Bennett, Parsons, and Frost, General Consultants.

"Although expressions of new resources in construction characterizing our twentieth century are absent, one design, making wonderful use of light, does take refuge in a directness, simplicity and force worthy the great monuments of the ages. This design is symbolic but not to the point where symbolism interferes with the simple beauty of the work as architecture.

"Seen from the air or from environment, the simple mass becomes a noble elemental feature of the ground in character worthy of the steadfast courage and faith of the Great Discoverer it commemorates. The cruciform canyon, emitting or receiving light, would be truly impressive from the interior and agreeably cool in a tropical climate. The whole has idea, unity, and avoids by a certain rational force the dull craze for altitude and the persistent erection of the "post." This design recognizes the fact that dignity and power of architectural conception is no matter of height. Construction is simple throughout, requiring no elaborate foundations, it may easily be made earthquake proof, and in point of cost is below that of any design submitted, probably well within the program limit."

JUNIOR LEAGUE, N. Y. S. A., HOLDS A SMOKER

The Junior League of the New York Society of Architects held a smoker at the Hotel Astor on Friday, October 23rd. 225 draftsmen and architectural students were present. New York University was very well represented by some 40 students. The Junior League has always had encouragement from this organization.

Colonel Jallade outlined the reason for the Junior League, stating that the object of the monthly talks was to bring the students in contact with those virile leaders of the architectural profession and those who are most fitted to tell these members of the Junior League what is before them in their chosen life work. Mr. Lippert, the other member of the Junior League committee, gave a very interesting talk on the background necessary to a common-sense study of architecture.

The entertainment was supplied by the members of the League themselves. A magician brought out of a silk hat almost everything imaginable except a job. He was out of that sort of thing. One of the members played mournful tunes on a carpenter's saw and probably the most interesting of all was the four-round bout played with piano accompaniment between two architects, with the owner and the builder as referee and timekeeper.

ATELIER RECTAGON OF BUFFALO

A testimonial dinner was tendered Mr. Henry Fruauff, the patron, by the members of the Atelier Rectagon on Saturday, September 26th. Mr. Fruauff was the Rectagon patron for the 1930-31 school year, and has also acted as critic for some three years before. Speakers of the evening included Mr. John Wade, Architect, and Mr. Karl Schmill, president of the Buffalo Chapter, American Institute of Architects. Mr. Wade outlined his student life in New York, comparing present-day work with the work turned out by Hornbostel's Atelier in its early days. He had the boys on edge all the time, and after hearing some of the things done in those days, our members almost broke up the dinner. The relation between the architect and the draftsman was the subject of Mr. Schmill's address. He particularly stressed the advantage of an atelier in building up a more friendly and co-operative spirit between employer and employee. B. C. Wojtkowski, massier of the Rectagon, acted as toastmaster.

Continuing the Discussion on Better Cooperation Between Architect and Material Man

Editor's Note:—*These letters continue the discussion, commenced in* PENCIL POINTS *for June, of ways of securing more intelligent co-operation between the architects and producers of building materials. All architects and material producers are invited to contribute expressions of opinion on this important subject.*

MARSHALL KEIG,
Chairman of the Board,
Knapp Brothers Manufacturing Co., Says:

"I have read your editorial referring to the Symposium. You have opened up a big question. There is no perfect solution.

"We get along pretty well with architects, because we recognize that the architect is a combination of artist, technician, and busy business man. He sells his cumulative personal skill to his client. He cannot be approached by standard sales methods nor by any high pressure or correspondence school tactics. Too many manufacturers are 'going at, sliding by, or running over the architect' to get *today's order*. If we are not building worthy structures, if specifications are being skinned, or if ethics and principles are being shaded, the over zealous manufacturer must take his share of the blame.

"The conscientious, progressive architect is entitled to the standing of the doctor or lawyer. The sooner we manufacturers recognize that fact the better it will be for manufacturer and owner. There are a few architects who might be classed as incompetent, arrogant, sloppy, or indifferent to progress, but that is also true of manufacturers and lawyers. As a whole, the architectural profession is made up of men with cultural and educational background who are specializing in a worthy endeavor as a life's work. Our experience teaches us that if a manufacturer has an item of merit he can sell it to an architect, but may we put it this way—just as the architect, in theory at least, aims to create an individually artistic and utilitarian home, apartment, office building, school, or hospital for each client, we feel there is no *standardized* rule of approach in selling the architect.

"According to the size of his office, the rules and notions of the architect, his temperament, his prominence, his schedule, his likes and dislikes, etc., there are different ways to make the contact, tell your story and win favor for your product. In our judgment there is no groove, no standard specification, through which or by which robot salesmen can see the architect. It works with the grocery storekeeper but he is not an architect.

"There are patent medicines and some of us buy them, actuated by advertising directed at the public, yet it is generally admitted that it is safer and cheaper in the long run to consult the Doctor. If he approves the advertised article, use it. Over a long period, recognizing the value of continuity of patronage, we believe business that comes from or by approval of the architect is to be preferred.

"Some pretty well known analysts state that our depression is partially the result of our robot era. We are not discussing unemployment due to standardization and machines. We are referring to the dulled perspective of the average individual. Is this the result of 'canned music,' 'Brooks' tours, slot machine cafeterias, 'Gulberton' systems, promoted or ready built homes and ap 'ments made from mail order standardized plans, and vo me-produced, highly-advertised, 'like peas in a pod' items?

"Charles F. Kettering, Vice President of the General Motors Corporation and President of General Motors Research Corporation, suggests that the salvation of industry and merchandising depends largely on a return of individual fancy and desire. I gathered from his address that business must encourage and support the architect and designer to the end that there will be provided and afforded a variety of attractive as well as utilitarian homes, office buildings, automobiles, etc., to stimulate and bring back individual selectivity and appreciation. Mr. Kettering is internationally known for his accomplishments. His viewpoint deserves and demands consideration.

"We hear criticism of the architect who has his pets. The manufacturer may say 'we can't sell a dime's worth because our competitor's agent is a pal of the architect.' Isn't that quite a human circumstance? A man can give a specification to a pal or a salesman he likes and still protect the pocketbook as well as satisfy the wishes of his client.

"Another manufacturer will say, 'So and So is an old fogy or he is bull-headed or partial to this or that.' Well, what of it? You do not expect to sell everybody. You don't, you can't—why try it? The salesman who knows his job realizes that real reform or real progress comes slowly. The man who said he would never ride in an aeroplane eventually and suddenly changes his mind. If you can't make a sale be patient. If you have a product of merit and are fully informed, if you are tactful and aggressive, you may sow the seed that some day blossoms into a specification.

"Should we go over an architect's head? We do occasionally, but it is the exception. Recently we approached an architect and asked if we might go over his head. While he reiterated that he was opposed to the particular item we were offering, he complimented us for asking his permission to interview the owner. It just happened that we sold the owner. In working out details with the architect there was not the slightest indication of any 'hurt feelings' or lack of continued friendship for our products. Generally speaking, we think it is not only 'tearing down' but, from a material standpoint, poor business to override the architect after only superficial effort to convince him of the merit of your goods.

"It is recognized that a former architect, designer, or specification writer with a desire or adaptability for selling would be the ideal representative, but there are not so many who wish to leave the profession. Some dislike traveling or calling while others candidly admit they could not bring themselves to the business of 'peddling' or selling.

"The technically-trained college youth, the young man off the drafting board, or the general run of ambitious individuals who seek sales agencies or territories must be tested for their mettle in sales ability. 'They are not all born that way.' Unfortunately the architect is imposed upon while these novitiates are trying to prove to themselves or the manager that they will eventually develop into well-informed, tactful, energetic producers.

"Sometimes the executive of a manufacturing concern feels the urge to visit the architect to indicate appreciation of consideration, make a new contact, or fill in an emergency call when his technical staff is tied up on other matters. He does his best, but apologetically 'reaches for' or wishes for an expert assistant to come to the rescue if the architect or one of his organization raises a technical question or wants a sketch on the moment to illustrate how this or that would apply here or there. Of course, if the manufacturing executive is frank and humble he is tolerated until he hustles back with the man who is specifically qualified to satisfy the skill of the architect. We have any number of architectural executives who have gone beyond the stage of detailed knowledge or up-to-the-minute technical skill. Occupied with the general executive duties of the business and charged with contact responsibility, they too must bring along the experts to sell the organization and explain in detail or solve the inquiries of the prospective builder.

"A well known architect acquaintance tells me that most of this complaint about incompetent nontechnical representation by manufacturers is due to the fact that in addition to a lack of ability or technical skill, the salesman is unconscious of his failings or too arrogant to admit them. The average architect I happen to know intimately is as considerate and human as any other sort. He will make due allowance for the shortcomings of a salesman, if the salesman is tactful, humble, earnest, and ambitious in the pursuit of his calling.

"Manufacturers must give better service. If the army of so-called sales engineers who offer 'to create and design the building' would spend some real talent watching or assisting the architect, contractor, or sub in the erection of the product, we would help the profession and industry.

"This is an age of hustle. Here and there, because of taking jobs at low figures, we do find incompetent or slipshod workmen who spoil an attractive and utilitarian product by careless and clumsy erection.

"We can't go too far because it is expensive, but we do believe architects and manufacturers can cooperate in seeing that the contractor or sub does not injure the reputation of a desirable item. A beautiful etching or picture is ruined by a botch job of framing. The architect should hold the contractor for workmanship and insofar as is reasonable, the manufacturer should contribute interest and experience. The sale is made when the article is in place and satisfactory to architect and owner. In our case we believe it pays our representatives to follow the job to completion. No one can measure the far-reaching results of service. Occasionally we run into a job where the concern with a reputation for service is asked to meet the price of the manufacturer who ships F.O.B. the job and then passes out of the picture. This is the exception. The average architect rewards the concern whose sample is per specifications. He remembers the manufacturer who 'follows through.'

"Personally, we are not surprised nor disappointed that no one has come forward with a complete solution for the differences that exist, and the imaginary barriers that do not exist. One member of our organization has suggested 'that each manufacturer must decide for himself (a) whether he is going to recognize the architect as a professional expert and try to sell him or (b) advertise and sell to both architect and owner indiscriminately or (c) sell to the public. He has a notion that continued and increased advertising and selling to both architect and public indiscriminately will automatically destroy the architect's prestige and position and eventually drive all manufacturers to the policy of selling to the public. When that time comes the architect will be more or less an extinct animal and we manufacturers will all be in the same boat trying to sell 'breakfast food' items to Tom, Dick, and Harry. This is a far flung idea of one of our representatives who seems to get along pretty well on 'horse sense' methods in dealing with architects.

"In conclusion, the Doctor is not a technician and usually a poor business man, the lawyer knows law, but the architect is a triad—artist, technician, and business man. Let's not be vexed if we try to approach and convince him with standardized high- or low-pressure presentation.

"It is not my thought that this letter should be printed in your magazine. While *it presents our experience and notions*, we are reluctant to create the impression that we are 'playing up' to the architect.

"It simply occurred to me that inasmuch as we profited from the various articles in the different issues, you might be interested in our experience.

"The Symposium is a success. Anything that stimulates thought is worthy. You may be assured that many a manufacturer and architect has been aroused to a desire to go half way in an effort to cooperate and solve some of these so-called problems."

ALLAN W. GORDON, of the E. F. Hauserman Company, Makes a Suggestion:

"Permit an humble 'Building Specialty Peddler' who may not even qualify as a gentleman (a necessary requisite to success) to venture a suggestion apropos of your recent symposium on the relationship of the architect and manufacturer.

"A manufacturer's representative, if he is to make headway with the sale of his product to architects, must be the embodiment of virtually all the graces and arts, social and otherwise, if we are to believe those who sent you their ideas on the subject.

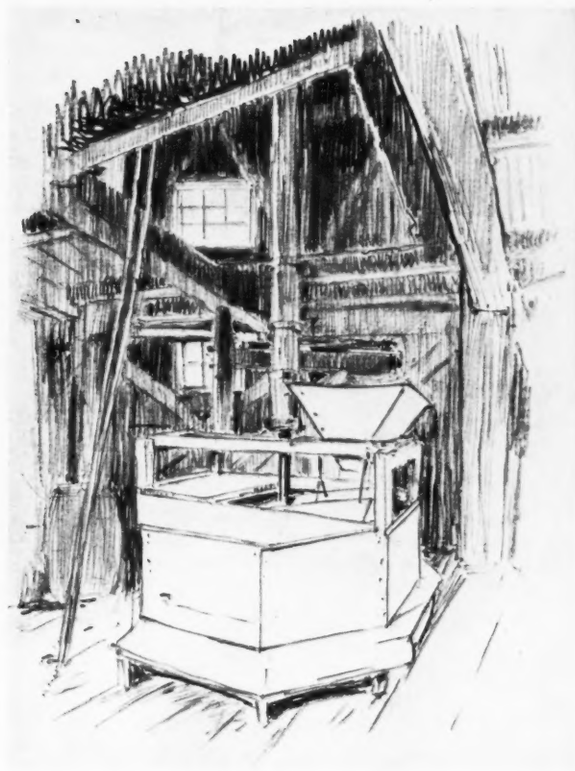
"The architect and the producer agree that this type of man would do them both much good, and naturally the task of developing him is a responsibility which should be shared.

"In each city or town, large enough to boast a chapter of the A.I.A., there should be instituted a plan whereby the architects would make a yearly award to the building material salesman who, in their estimation, had done the best piece of sales work. The award or prize could take the form of a medallion, plaque, cup, or what not—this would not be important.

"Ultimately, I can conceive of this idea spreading to the provinces, and in that case, a salesman who had earned an award in a city—say St. Louis, for example—might have his record entered in a State competition. Carrying this development process to its conclusion would mean the establishment of a national prize which would be sought after most eagerly.

"This idea has been knocking around in my head for quite some time and I think that I have evolved answers to most of the objections that will be raised, but I need not bother you with these now.

"Through your worthy publication, a voice may be given to this plan, and if it is not taken up with enthusiasm, it fails of its purpose and that's that, but I would like to see it given a try."



PENCIL DRAWING BY LOIS HOWE
PRIZE IN BOSTON ARCHITECTURAL CLUB SHOW

BOSTON ARCHITECTURAL CLUB

The annual exhibition of summer sketches at the Boston Architectural Club was held from October 19th through October 31st. The exhibition as usual took place in the attractive Great Hall of the Club at 16 Somerset Street and the public was invited. The exhibition was composed entirely of the work of members of the architectural fraternity in Boston, each member of whom was permitted to contribute three pictures in any medium, water color, pencil, pen-and-ink, and etching.

An interesting feature about this exhibition was that it hung for one week for public inspection before the awards of merit were made. At the end of the first week of the exhibition a jury composed of three eminent artists, Frederick Hall, Charles Hopkinson, and Charles Woodbury, judged the exhibit. During the second week of the exhibit the public again had the opportunity to view it and compare its own judgment as to the merit of the works exhibited with the awards of the jury.

Architects have made good painters before now, and in the field of etching there are several whose work in depicting architectural scenes of beauty have passed over completely from the blueprint to pure art. The high quality of work which was shown at this exhibit was indicated by the fact that prize winners in the past have included the names of Carroll Bill, Ralph W. Gray, and Robert P. Bellows.

The following awards were made: Oils, 1st prize, E. Donald Robb, 2nd prize, William L. Mowll; Black and White, 1st prize, Miss Lois Howe, 2nd prize, Constantine Pertzoff, 3rd prize, George F. Bosworth; Woodcuts, 1st prize, A. B. LeBoutillier; Water Colors, 1st prize, Isidor Richmond, 2nd prize, William Roger Greeley, 3rd prize, Joseph H. Fanck; Juniors: Water Colors, 1st prize, George S. Lewis, 2nd prize, Michael Cannata.

The following were placed Hors Concours as the exhibitors had won prizes in previous exhibits: Carroll Bill, Robert P. Bellows, and Ralph W. Gray.

THE BROOKLYN CHAPTER, A.I.A.

The Brooklyn Chapter, American Institute of Architects, held its regular dinner meeting at the Crescent Athletic Club on Monday, Oct. 26, 1931.

The Student Affiliate Committee reported that, owing to the depression, there were but four students ready and able to do their share toward the support of the Atelier and it was voted temporarily to abandon this activity and renew it next season or when the student interest is again increased.

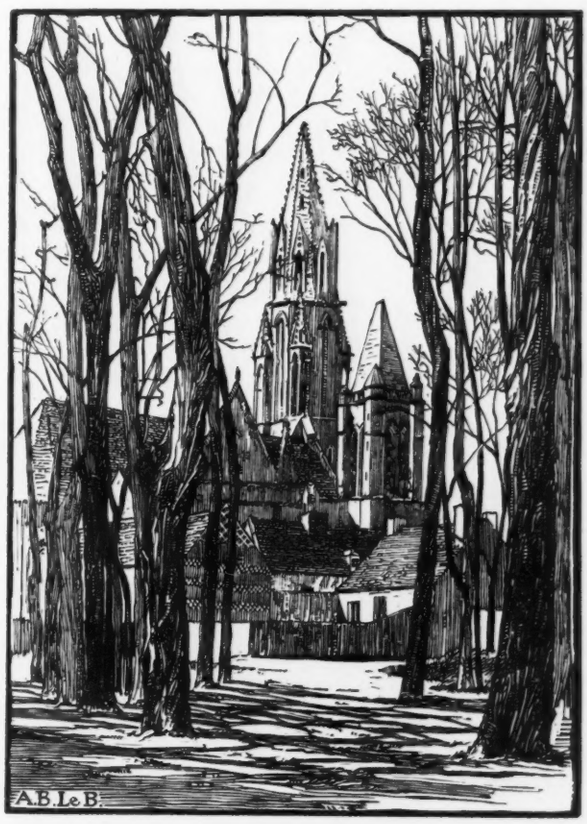
The Chapter made an appropriation for the unemployed and sent an appeal to all of its members to assist to their limit.

Paul Wunderlich gave a very interesting talk on the latest phases of heating, ventilating, and air conditioning.

The President, Charles C. Wagner, presided.

PENCIL POINTS COMPETITION DRAWINGS

We have been holding a number of PENCIL POINTS Small House Competition designs which have been returned to us due to changes of address, etc., and would appreciate it if their owners would communicate with us as soon as possible. Their names are as follows: Messrs. P. M. French and G. W. Wiles, Messrs. J. Everett Fauber and Jones Chapman, Mr. Alex C. Soper, and Mr. Michael De Rubertis.



"SENLIS CATHEDRAL," WOODCUT BY A. B. LE BOUTILLIER
PRIZE IN BOSTON ARCHITECTURAL CLUB SHOW

FRANCIS R. ALLEN

1844-1931

Francis R. Allen, Boston architect, died November 8th at the Charlesgate Hotel, Boston, after a long illness.

Mr. Allen was born in Boston in 1844, the son of Frederick Deane Allen and the former Mary Richmond. After graduating from Amherst College in 1865, he was with his father's dry-goods firm for about ten years. He studied at the Massachusetts Institute of Technology in 1876-7 and at the Ecole des Beaux Arts, Paris, the next year.

After the death of his first professional associate, Arthur Kenway, Mr. Allen organized the firm of Allen & Collins. Among the buildings which the firm has designed are the Leslie Lindsay Memorial Chapel, eight buildings at Williams College, twelve at Vassar, Union Theological Seminary's group in New York and that of Andover Theological Seminary in Cambridge, Massachusetts.

EIGHTH ANNUAL SMALL SCULPTURE COMPETITION

The Eighth Annual Competition for prizes offered by The Proctor & Gamble Company for Small Sculptures using white soap as a medium is announced by the National Soap Sculpture Committee, 80 East Eleventh Street, New York. The competition closes May 1, 1932. Ninety-six prizes and four special awards, totaling $1950, are being offered for amateurs. Two special industrial awards are being offered this year.

An Architectural Award: for the best design, according to the judgment of the jury and a representative of the Architectural League of New York, an award of $50.00 will be given for a single design, chosen from entries submitted in this special class, best suited for architectural use as a doorway in a building in the contemporary style.

Motor Car Radiator Cap Ornament Award: for the best design, according to the judgment of the jury and a representative of the Packard Motor Car Company, an award of $50.00 will be given for a single design, chosen from entries submitted in this special class, best suited for reproduction in metal, for use as a radiator cap ornament on a passenger motor car of distinction.

For further information address the Committee at the above address.

BUSINESS MEN'S ART CLUB

The Business Men's Art Club of New York held its first class session on October 19th, in The Barbizon-Plaza, under the instruction of Mr. Kimon Nikolaides. The class meets every Monday night. The Club is also meeting on Thursday nights for informal sketching without an instructor. Upon these Thursday nights a model is always provided by the Club.

THE NEW YORK ARCHITECTURAL CLUB, INC.

Through the kind courtesy of the firm of Voorhees, Gmelin & Walker, who are giving us the use of a large part of their office space, our club's address is now 120 East 41st Street (370 Lexington Avenue), 18th floor.

This will give us a fine chance to carry out our work on the club's expansion program during the winter months, with the prospect of going into our permanent quarters by the end of next spring.

BROOKLYN BUILDING AWARDS COMPETITION

Plans for the second annual building awards competition, conducted by the Brooklyn Chamber of Commerce, are under way. Entries in the awards competition for new buildings in various classes completed during the period from December 1, 1930, to November 30, 1931, are now being received by the Building Awards Committee, Brooklyn Chamber of Commerce, 66 Court Street, Brooklyn, New York.

Entries will be received by the committee up to Tuesday, December 15th. The following classes of buildings are eligible for awards: industrial structures, business and investment structures, business and residential structures (combined), apartment buildings, residence buildings, residential groups and institutional buildings (Federal, State, and Municipal structures excepted).

UNIVERSITY OF TEXAS

The University of Texas has increased its course in Architecture to five years. Plans have been approved by the college for a new building for their School of Architecture, which should be completed by the end of next year. The only remaining four-year course in Architecture in the State of Texas is now given by Texas Tech.

EXHIBITION OF THE NEW YORK ARCHITECTURAL LEAGUE

The Forty-seventh Annual Exhibition of the Architectural League of New York will be held at the American Fine Arts Building from February 26th through March 12th, inclusive.

A LETTER FROM THE ARCHITECTS' LEAGUE OF NORTHERN NEW JERSEY

"To all Chapters of the American Institute of Architects and other Architectural Organizations.

"Dear Sirs:

"The Architectural Organizations in the suburbs of New York, and at least two within the city, have signified their opposition to the Architects' Small House Service Bureau.

"The Bureau undoubtedly was conceived with worthy motives, but in its workings has brought real hardships upon the residential architect and others just starting their practice.

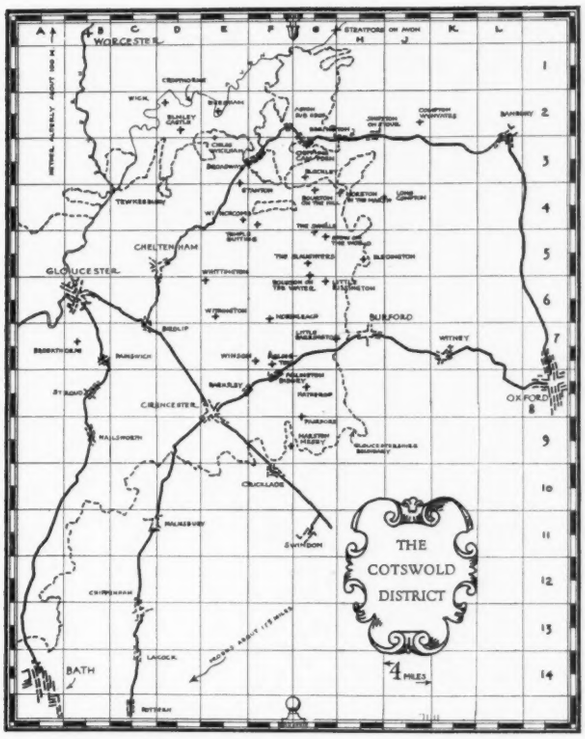
"We have found the Bureau acting not so much as a 'clinic' for that poor client who cannot afford both an architect and a colored tile bathroom, but rather as an aggressive, price cutting competitor of the architects for their already established clientele: and this at a time of depression when architects need every bit of work they can get.

"No other allied part of the building industry, such as the realtor, mortgage company, material yard nor the labor union, has a similar official 'bread line' to give away its services and thus endanger its firmly set scale of payment achieved by years of effort.

"A director of the Bureau told the writer that he saw no reason why the Bureau's activities should not be extended to include the eight- or nine-room house with garage attached. The possibilities of extending the 'clinic' are unlimited in scope and feasible for every phase of architectural service. Also a large market is open for organizations such as Sears Roebuck, who recently

(Continued on page 932)

THE DRAFTSMAN'S LIBRARY



MAP OF THE COTSWOLDS

From "Small Stone Houses of the Cotswold District."

Small Stone Houses of the Cotswold District, by E. A. Ruggles, with pencil sketches by Meade A. Spencer; 143 plate pages, 11″ x 15″; price $15.00; published by J. H. Jansen, Cleveland, Ohio.

We never tire of the Cotswold architecture and this book is pleasant to look upon. The many well taken and clearly reproduced photographs together with Meade Spencer's pencil sketches will give the user of the volume plenty of inspiring material for translation into domestic architecture of today. The subjects of the photographs were selected with an eye to their adaptability for use in the United States. Buildings are shown in their entirety and in detail so that the designer can get the sort of material he wants. There are no measured details but perhaps that is just as well, for it is the spirit rather than the letter that is most desirable to retain. Intelligently used, this volume will justify its inclusion in any residential architect's library.

School Ventilation, by the New York Commission on Ventilation; 67 pages, 5″ x 7¼″; price $1.00; published by the Bureau of Publications, Teachers College, Columbia University, New York.

This little book is the final contribution of the New York Commission on Ventilation, whose work was financed by the Millbank Memorial Fund—1913-1923, 1926-1929. The general conclusions of the commission are summarized at the end of their report in six points as follows:

1. "The major objective of schoolroom ventilation is the provision of such atmospheric conditions as will facilitate the elimination of heat from the body surface without the production of objectionable drafts. In practice, this means the maintenance of a room temperature of 68° to 70° F. with moderate air movement. Under such conditions special control of humidity is not essential except perhaps in certain northern regions where humidity is exceedingly low in cold weather. A minor objective should be the provision of sufficient air change to avoid unpleasant body odors.

2. "The avoidance of overheating is of primary and fundamental importance for the promotion of comfort and efficiency and the maintenance of resistance against disease.

3. "Desirable conditions may be obtained by at least three methods of ventilation when proper design and operation are provided: (a) by plenum ventilation; (b) by local unit ventilation; (c) by window-gravity ventilation. For the average school, favorably located, window-gravity ventilation seems to be the method of choice on grounds of comfort and of economy.

4. "Further investigations, in regard to the physiological effects of radiation and convection of heat, of vertical variation in temperature, and of electrical and other properties of the atmosphere, are greatly to be desired.

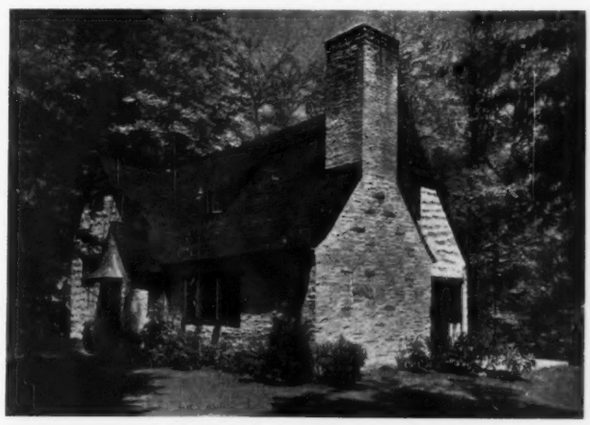
5. "The present laws and regulations requiring a supply of thirty cubic feet of air per pupil per minute in the schoolroom have no justification in theory; and, in practice, may involve a serious handicap to progress in the art of school ventilation.

6. "Such regulations should be replaced by laws outlining the major objectives of schoolroom ventilation and delegating to some small expert official body the power to determine whether specific plans for school ventilation are adequate to attain those objectives."

These findings, and the remarks leading up to them, are of great importance to every architect and the book should be read by every practitioner who does, or expects to do, any school buildings.

Country Houses, by Frank J. Forster; 183 plates, 9¼″ x 12¾″; price $15.00; published by William Helburn, Inc., New York.

Frank Forster has won his way to a recognized position of distinction in the field of residence architecture. This



A RESIDENCE AT SCARSDALE, NEW YORK

From "The Work of Frank J. Forster."

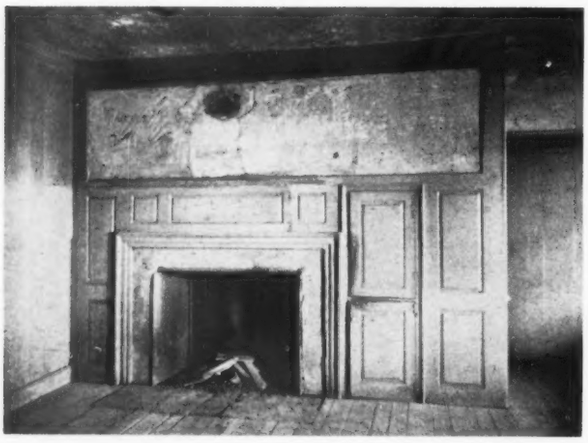
volume, therefore, containing a selection of his best work, should be of real inspiration to architects, young and old, who are interested in domestic work. Sixteen houses are shown—and they are shown generously by means of plans and other drawings by H. Raymond Bishop and plenty of photographs by John Wallace Gillies, Inc.—so that the reader gets a very good idea of the quality of the architect's work. Before looking the pictures over, we suggest the advisability of reading Mr. Forster's introduction, for from it one can gain something of the architectural philosophy that guided him in his work. He is a firm traditionalist and has consistently based his architecture on sound, logical design and appropriate use of natural materials.

Building Construction, by Whitney Clark Huntington; 571 pages, 5¾″ x 9″; price $6.00; published by John Wiley & Sons, Inc., New York.

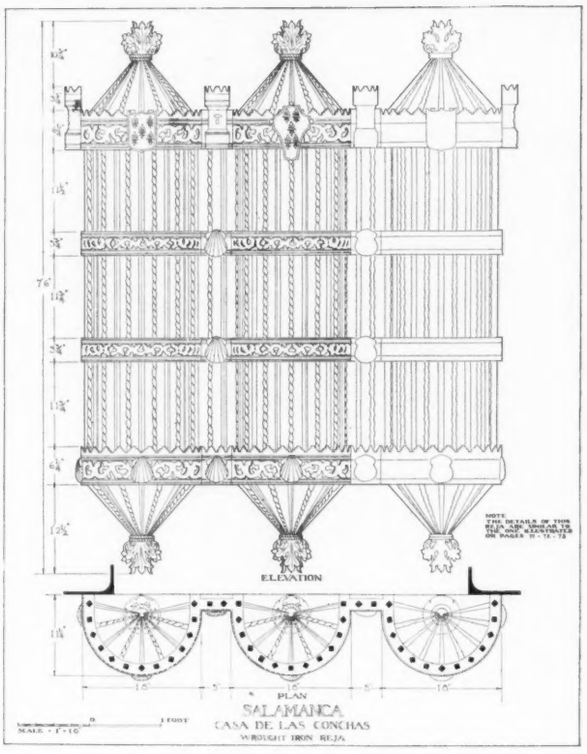
The preface to this book states as its purpose "to describe the types of construction used for the various parts of buildings, the materials used in building construction, the methods used in estimating the cost of building and in cost keeping during the process of construction." While it was written primarily as a textbook for students in engineering the author kept in mind the requirements of architectural draftsmen, inspectors, and superintendents. Such men, who wish to study up on construction, will find the volume of considerable help. The author is Professor of Civil Engineering at the University of Illinois.

Early Domestic Architecture of Pennsylvania, by Eleanor Raymond; 158 plates, 9¼″ x 13″; price $20.00; published by William Helburn, Inc., New York.

The author of this book has brought together for the first time, in organized form, a large group of photographs and measured drawings of the earliest domestic buildings of Pennsylvania. The buildings shown are naturally of a sturdy, simple type such as was fitting for the pioneer times in which they were built. They comprise houses, barns and other farm buildings, and religious buildings. It is simple, honest, unaffected architecture designed functionally and built with the sound materials at hand. Designers who study these indigenous buildings can learn a great deal of the real essence of architecture. 26 plates of measured details supplement the 290 photographs.



KITCHEN, WARRENPOINT, CHESTER COUNTY
From "Early Domestic Architecture of Pennsylvania."



DETAIL OF A REJA
From "Architectural Details of Northern and Central Spain."

Architectural Details of Northern and Central Spain, by Gerstle Mack and Thomas Gibson; 146 plates, 10″ x 13¼″; price $16.00; published by William Helburn, Inc., New York.

The well-remembered *Architectural Details of Southern Spain* by the same authors, published some time ago, has now a worthy companion volume. We don't see how it can help being of great assistance and inspiration to the architectural designer. The examples are extremely well selected and the information about them is admirably presented in the form of well taken photographs and beautiful line drawings, fully dimensioned. The draftsman who can add this volume to his library is lucky indeed. Doorways, windows, patios, balconies, grilles and other examples of wrought iron craftsmanship will suggest much to the discerning designer. If he wants to crib direct, the information is there—if he chooses to adapt rather than copy he can stimulate his imagination by looking the book through before setting pencil to detail paper. The measured drawings number 104 and there are 55 photographs.

Lumber and Its Uses, by Royal S. Kellogg; 365 pages, 5½″ x 8½″; price $4.00; published by the Scientific Book Corporation, New York.

This latest edition of a standard reference book is completely modernized and improved so that it will serve the needs of today so far as information about lumber is concerned. Of particular interest to the architectural man is all the information he can use in writing his specifications. It is generally accepted that the well-equipped draftsman and architect should know as much as possible about the materials of construction. This volume makes it easy for him to learn about one of the commonest of materials used in building.

A CHIMÈRE FROM RHEIMS

From "Gargoyles, Chimères, and the Grotesque in French Gothic Sculpture."

Gargoyles, Chimères, and the Grotesque in French Gothic Sculpture, by Lester Burbank Bridaham; 204 plate pages, 9½" x 12½"; price $18.00; published by the Architectural Book Publishing Company, Inc., New York.

The rich treasury of architectural grotesques contributed to us by the builders of the Middle Ages has not before been so successfully tapped as it has in this valuable reference book. The author has brought together a fine collection from widely scattered examples of French mediæval art and his contribution to the architectural literature of the period is most important, meriting the thanks of the profession. As Ralph Adams Cram points out in his introduction to the book, the author has shed new light on the spirit of the Middle Ages and has made it clear that there was much gaiety and humor in the lives of the people and that life as lived in those times was not, as is so often erroneously supposed, miserable and morose. The designer will find the collection very useful in connection with Gothic projects.

Perspective in Drawing, by D. D. Sawyer; 59 pages, 4¾" x 7¼"; price $1.75; published by Charles Scribner's Sons, New York.

This little manual should be an aid to the student of sketching who has not otherwise studied the principles of perspective. The points taken up are particularly applicable to the problems met by the sketcher face to face with nature. The book is not and does not pretend to be a guide in the making of architectural or mechanical perspective drawings.

Southern Architecture Illustrated, with a Foreword by Lewis E. Crook, Jr., and an introduction by Dwight James Baum; 272 plate pages, 9" x 11¾"; price $5.00; published by the Harman Publishing Company, Atlanta, Georgia.

An excellent collection of photographs and plans of the best modern domestic work of the south is contained in this book. Brought together in this way it impresses one with the fact that the work in this section of our country compares well with that of any other district. The buildings are predominantly Colonial in character—and what style fits so well into the atmosphere of southern life? It is truly American and blends into the landscape so well that it almost seems a part of it. Though most of the work shown is by Southern architects there are some examples by northerners who have, however, kept the best traditions of the south in mind as they worked out their designs. For the man interested in domestic work this is a good collection of fine examples.

1860-1930 Memories, by Glenn Brown; 579 pages, 6½" x 9"; price $5.00; published by W. F. Roberts Company, Washington, D. C.

Reviewed by Francis S. Swales

This notable book bears on its title page as the description of its contents: "A Winning Crusade to Revive George Washington's Vision of a Capital City." Of course, we cannot be sure as to just what that vision was; yet since a plan implies elevation—architects, more than any other people, can vizualize the third dimension intended by a horizontal projection; and that much of Washington's vision, as interpreted by an able architectural designer and military engineer on his staff, Pierre Charles L'Enfant, has come down to us. It was L'Enfant's plan that was revived and extended, and in some measure improved, by the campaign which is the theme of Glenn Brown's interesting volume. The campaign established in the minds of the public the idea that the plan is a permanent program and that, like the Constitution, it should be maintained. The book is an autobiography which deals rather with *bio* than *auto*—a genial but keen and judicial outlook upon all who assisted or opposed him in a good fight. It contains a fund of architectural experience in particular phases of its bearings in sociological and political conditions in America and elsewhere, with special reference to the National Capital, during nearly three-quarters of a century.

In his Foreword Mr. Brown states: "My memories describe a campaign for the development of Washington City, giving personal recollections of Public Buildings, landscape, sculpture, and painting; and personal reminiscences of artists and officials participating in the winning crusade. *(Continued on page 46, Advertising Section)*

GLENN BROWN

From a portrait by L. B. Baker.

HERE AND THERE AND THIS AND THAT

This department conducts four competitions each month. A prize of $10.00 is awarded in each class as follows: Class 1, sketches or drawings in any medium; Class 2, poetry; Class 3, cartoons; Class 4, miscellaneous items not coming under the above headings. Everyone is eligible to enter material in any of these four divisions. Good Wrinkle Section: a prize of $10.00 is awarded for any suggestion as to how work in the drafting room may be facilitated. No matter how simple the scheme, if you have found it of help in making your work easier, send it in. Competitions close the fifteenth of each month so that contributions for a forthcoming issue must be received by the twelfth of the month preceding the publication date in order to be eligible for that month's competitions. Material received after the closing date is entered in the following month's competition.

The publishers reserve the right to publish any of the material, other than the prize winners, at any time, unless specifically requested not to do so by the contributor.

THE PRIZES IN our competitions this month have been awarded as follows:

Class I—J. Mac Iver, New York.
Class II—A. C. H., Oakland, California.
Class III—L. R. Chapman, Los Angeles, California.
Class IV—No Award.
Good Wrinkle—C. T. Hagerstrom, Gary, Indiana.

We are planning to have our annual Christmas Card Competition this year, and invite contributions of original designs from all our readers. The competition is open until January 10th, 1932. Address your card to E. L. C. in care of this department. A Merry Christmas!

RULES FOR YOUR OWN GOOD

ADAPTED FROM A SILVER MAN

(PRIZE—*Class Two—November Competition*)

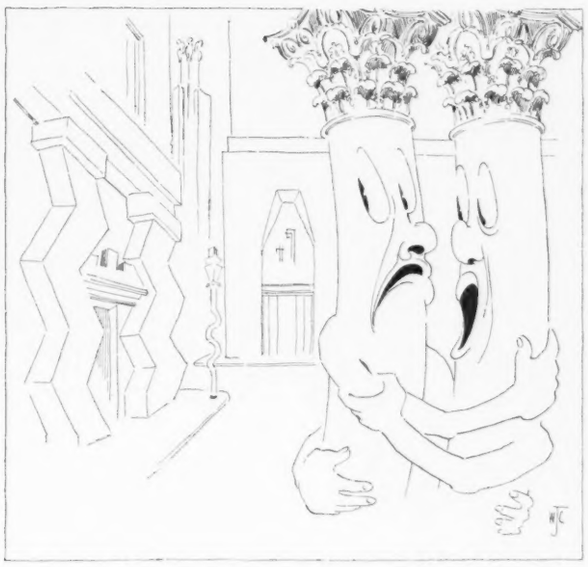
By A. C. H.

Read Einstein, Shaw and Russell—modernize your mind;
Revise your forms and letters—turn to technique more refined;
Show more consideration for your own time and the boss's,
And do not talk so much about your recent market losses.
In moments of distraction, should you feel inclined to shirk:
Don't disturb the other man whose mind is on his work;
Avoid arriving tardy—the boss won't mind a bit,
And don't put on your hat and coat before it's time to quit.
Or don't incur the client's scorn; and one more thing in closing:
Don't dance abroad 'til early morn' when you ought to be reposing.

W. F. Schaphorst of Newark, N. J., has written us about reproducing blueprints. Last month we described a way of doing this by inking in on the blueprint the part of the drawing to be reproduced. Mr. Schaphorst tells us his way:

"My method is to send the blueprint to a photostat concern and specify the size I want. The minimum size of photostat is 8½" x 11" and costs only 25 cents. The

"HUDSON RIVER BARGE AT SUNSET," FROM A CARBON PENCIL SKETCH BY J. MAC IVER, NEW YORK
(PRIZE—*Class One—November Competition*)



By Walter J. Campbell, Danbury, Conn.
"The Old Order Changeth"

photostat copy which they return to me together with my original blueprint is a so-called 'positive.' That is, the lines are black and the background is white. A first-class photostat job will give you good sharp black lines which can be reproduced without difficulty."

From such a photostat a halftone plate may be made as well as a line plate. Our apologies to our readers for not describing this method and our thanks to Mr. Schaphorst!

We have a number of good wrinkles this month but no space to print them. We're hoping for more space next month. Which reminds us—how do you like the new cover?

FOOTING FOR DRAWING BOARD CORNERS

By Frank W. Bentley, Jr., Missouri Valley, Iowa

A great many things are used as pads or small footings for the under side of the flat drawing board to make it easy to handle on flat surfaces or a sloping table. Most of the devices are either hard to make, hard to get, or hard to put on. Buy several of the small soft rubber seat bumpers sold in any ten cent store. Fasten them quickly to the board with small screws as shown above, turning them in until the heads are well below the contact points on the bumper strip. Holes for the screws are already in the rubber strips, and they make the board easy to use and handle and pick up on any kind of a smooth surface.

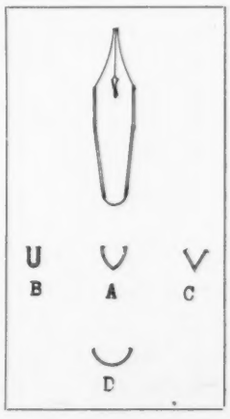
"The Browning Club," by Van Burks, Nelson, Ga.

LINOLEUM BLOCK KNIVES FROM PEN POINTS

(Prize—*Good Wrinkle—November Competition*)

By C. T. Hagerstrom

1. Use straight-sided pen point similar to Gillotte 303 or Hunt.
2. Heat to red heat over gas flame, etc., and allow to cool to remove brittleness.
3. Knife "A" is usual shape after squeezing with pliers. "B" and "C" possible with more care. "D" requires no squeezing.
4. Sharpen cutting edges with file or emery paper.
5. Insert in common penholder "in reverse."



Submitted by L. R. Chapman, Los Angeles, Calif.
(Prize—*Class Three—November Competition*)

A LETTER FROM THE ARCHITECTS' LEAGUE OF NORTHERN NEW JERSEY

(Continued from page 926)

advertised to ten million people that the architectural fees could be saved by dealing with that company.

"The architectural publications are printing many articles by the officials of the Architects' Small House Service Bureau extolling their new doctrine of their stock plan idea for architects; namely, that supervision is more important than individuality of design. These writers completely overlook the fact that architects are not enthused about supervising somebody else's stock plan; and that architects are not trained to offer their services primarily as supervisors, and secondly as designers.

"During the past winter architects in the vicinity of New York City were solicited for funds to aid the unemployed draftsmen, and they responded generously. The Architects' Small House Service Bureau became the recipient of that generosity by a gift of forty-eight draftsmen whose salaries were paid out of that charitable fund! This winter promises to be long, hard and meagre for every one; but in addition, architects are expected also to compete against their own last winter's charity.

"At the present time the American Institute of Architects endorses the Architects' Small House Service Bureau.

"We consider that this Bureau, as now constituted, is merely another commercialized stock plan company operating under the guise of a 'clinic,' and is no more entitled to favored endorsement of the A.I.A. and the U. S. Department of Commerce than you or I, or any other architect or stock plan company.

"This continued endorsement, especially during this depression, is increasing an already aroused antagonism and resentment among architects and their organizations, and if allowed to grow will menace the prestige of the A.I.A. and imperil, by loss of good will, its attraction for future membership.

"Unity and harmony in the profession are most vitally needed, and we should greatly appreciate an expression of your opinion on this critical matter.

"Yours sincerely,

"(*Signed*) CLARENCE H. TABOR, JR.,
"*President.*"

"Say, Mac, could you fix me up something in the way of a dog house?"

THE SPECIFICATION DESK

Writing the Specifications for Metropolitan Square

Our readers will remember that we published an article by Lester N. Sanger on the subject of writing specifications, when he was in the office of John Russell Pope. At the present time Mr. Sanger is engaged in writing the specifications for the largest building project now under construction in this country—the Metropolitan Square Development (formerly referred to as Radio City) in New York City, of which Reinhard and Hofmeister; Corbett, Harrison, and MacMurray; and Hood and Fouilhoux are the architects. Some of the perspectives showing the proposed development were published on pages 776 and 777 of our October issue.

The excavation work on the site, which runs from 48th to 51st Streets and from Fifth to Sixth Avenues, has been partially completed and will be followed immediately with the construction of five of the buildings. Last June Mr. Sanger prepared outline specifications for the Development from preliminary drawings. These preliminary specifications were prepared for general estimating purposes only and as a check on the budgeting of the work, not for actual subcontracts. The drawings accompanying them indicated merely in a general way the requirements to be developed on the final drawings.

LESTER N. SANGER

Mr. Sanger has been connected with some of the foremost architectural and contracting firms in the country including the firms of John Russell Pope, Delano & Aldrich, Carrère & Hastings, Dennison & Hirons, and Marc Eidlitz & Sons. For several years he managed the office of Frank Grad in Newark, which organization does a large share of the public building in that territory. Mr. Sanger is a member of the Architectural League of New York and of the Construction Club.

In writing any specification Mr. Sanger gives a brief descriptive list of the work included but writes in detail the definite kind and quality of the materials to be used and the requirements of workmanship. A definite correlation exists between drawings and specifications, but duplication of information is sedulously avoided.

The location and extent of the various materials and finishes are covered as far as possible on the drawings and schedules. The use of schedules reduces the possibility of discrepancies between the drawings and specifications, covering information not obtainable otherwise until the drawings are completely lettered and numbered. Listing of locations, with finishes, types of doors, jambs, trim, saddles, etc., can usually be presented more clearly by schedules than they can be by drawings or specifications.

In general Mr. Sanger writes his specifications for the different branches of the work in the following sequence, varied to comply with the particular project.

General Conditions
Preliminary Work
Demolition
Excavation
Mass and Reinforced Concrete
Structural Steel
Floor Arches and Fireproofing
Concrete Fill and Cement Finish
Masonry Work
Stone Work
Architectural Terra Cotta
Insulation
Dampproofing and Spandrel Waterproofing
Roofing and Sheet Metal Work
Rough Carpentry
Millwork and Interior Wood Finish
Miscellaneous Iron
Metal Windows
Caulking
Hollow Metal Work
Elevator Enclosures
Metal-covered Doors, Frames, and Trim
Lathing and Plastering
Acoustical Treatment
Hardware
Mail Chute
Ornamental Bronze and Iron Work
Marble Work
Terrazzo
Tile
Glass and Glazing
Painting
Decorating
Lighting Fixtures
Tenants' Requirements

A copy of the General Conditions is prefixed to each trade section of the specifications issued. It is good practice to note both the branch of the work and also the job on every page of each specification; this will identify a page should it become detached. In preparing specifications for any large building the work is done according to the general contractor's progress schedule.

The introduction of landscaping at the various setbacks of the different buildings in the Metropolitan Square Development presents a new subject to be provided for by

(Continued on page 46, Advertising Section)

Building Stone—1

By David B. Emerson

About six years ago, I wrote an article on Stone for another publication, which no doubt some of the readers of this article may possibly remember. Since that time many things have happened. I can safely say that I have learned much which I did not know then. In addition to that which I have learned, the stone trade has also learned some things which they apparently did not know six years ago. That is they may have known them, but the knowledge was still inchoate and was not very extensively applied. Many new and improved methods for the working of stone have been introduced, and are being very successfully used. This applies most particularly to granite where great advances in the use of machinery have been made in the past few years. Added to the new methods which have been introduced in the stone trade, some new materials have also been introduced. Taking all this into consideration, I feel convinced that it is quite possible for me to write a new article which will not be a repetition of my former article. In writing of stone, it is well to differentiate between building stone and decorative stone. Building stone is any stone which is used as a constructive material, and which helps to weatherproof a building, and which may be called upon to support loads. Decorative stones are those which are used either on the interior or the exterior of a building and have no structural value, such as wainscots, mantels, fireplace facings and hearths, store fronts, marble panels on the outside walls, and anything which adds beauty without utility. It is my purpose in this article to discuss building stones only.

The principal stones used for building at the present time are granites, limestones, sandstones, and marbles. Other stones are used to a moderate extent, but in comparison to the four which I have named their value is practically negligible.

Granite is a holocrystalline granular rock of igneous origin, that is it was created by the action of fire or heat. The American Society for Testing Materials defines granite as "any natural igneous rock formation of visibly crystalline texture." This includes the gneisses and schists suitable for building purposes. The name granite is derived from the Latin *granum*, a grain, and alludes to the granular structure of the rock. Its essential constituents are quartz and potash feldspar, and the principal accessory minerals are either mica or hornblende with secondary minerals of the pyroxene group. The mica may be either black ("biotite") or white ("muscovite"). Both kinds of mica occur in small shining scales, which are sometimes hexagonal in shape, though more frequently they are quite irregular in form. Mica is soft and fissile, and therefore is an element of weakness in the stone. It takes a polish with difficulty and the polish is soon lost with exposure to the weather. The finest grade of building granites should only contain mica in small flakes, evenly distributed throughout the mass of the rock. Hornblende, on the contrary, acquires a very good and lasting polish, and as a mineral is strong and durable. Most authorities agree that the presence of hornblende in a rock is believed to be preferable to that of mica.

Granite is the hardest of all building stones and with very few exceptions has the greatest compressive strength, but unfortunately it has very poor fire resistive qualities, poorer in fact than almost any other stone. It spalls very badly and quite frequently bursts when subjected to intense heat. This is generally conceded to be due to its compact and complex structure, each of its constituent minerals possessing different degrees of expansibility; it is also due to minute bubbles of water and liquid carbonic gases contained in the stone.

Granite is found both in ledge formations and in boulder formations. For general building purposes, ledge stone is perhaps better than the boulder stone, due to its being formed in layers or sheets. Where very large monolithic blocks such as the dies of pedestals for statues and other such uses are required, boulder stone, on account of its homogeneous structure and freedom from seams is generally considered better than ledge stone. Now in regard to boulder formations, most of us are very liable to think of a boulder as something a little larger than a beer keg (some of us still remember what they used to look like), up to something a little smaller than an Austin car. That is all right as far as it goes, but some of the boulders from which granite is being quarried contain many thousand cubic feet of stone. For example, North Conway and Milford granite are both boulder formations.

One of the most recent additions to the granites already on the market are the black granites. These granites lend themselves admirably to the current modernistic trend in architecture. Just how long the geologists and the stone trade have known of the existance of these granites, I do not know, but their use to any great extent has been quite recent. An excellent black granite is being imported from Sweden. This stone is a hornblende granite and has no mica in its composition. It is a dull, bluish gray with a mottling of dark brown and silver tones before polishing and when polished has a quality not wholly unlike the mirror black porcelains. This stone was used in the two lower stories of the American Radiator Company's building in New York, and for the show window bases and friezes and for the trim around the doorways in the Empire State Building. Quite a number of the black granites are not black when quarried, but they appear to be black after polishing. At the present time black granites are being quarried in Maine, Pennsylvania, Virginia, Wisconsin, and Michigan, and a new quarry has just been opened in Canada. This stone is not on the market at the present time, but will be available in a few months.

As I stated in the beginning of this article, the use of machinery in the granite industry has increased materially in the past few years. This is not remarkable in this machine age. With the steadily increasing cost of labor it becomes necessary to reduce the cost of production by the introduction of various types of labor-saving machinery. Quarrying has been materially improved of late years. The more up-to-date quarries are now getting out stone by drilling and channeling instead of by blasting as in former times. By this method a series of holes located about two inches apart are drilled in the top face of the rock, run-

ning down to the seam. The spaces between the holes are then broken down with a pneumatically operated channeling bar. This method eliminates the possibility of shattering the stone, thereby producing stones which are much better shaped for cutting, which naturally reduces the wasted time and material. Still greater advances have been made in the cutting shops, where with the use of electric traveling cranes, pneumatic tools of many kinds, and the carborundum wheels, the methods of production are practically revolutionized. Only a few years ago it was believed to be absolutely impossible to saw granite with a gang saw, the same as marble and other soft stones had been sawn for many centuries. Today the gang saw is being used very successfully in the sawing of granite, using steel shot as an abrasive. The saws used for sawing granite differ from the saws used for the sawing of the soft stones in that the blades are notched at intervals of six or eight inches and not smooth as is the case with saws used for the soft stones. With most granite it is possible to use only four to seven blades in a gang, instead of the large number which is used in sawing limestones and marbles, although with some granites as many as sixteen blades are sometimes used. Circular saws with notched edges, using steel shot for an abrasive, are also used for sawing granite. Sawn granite is produced in slabs four inches thick as the ordinary minimum thickness and two inches thick as a practical minimum thickness; also it is possible to produce slabs one inch thick. Carborundum wheels are used for cutting, fluting, edging, and coping stones. Also, after sawing, the slabs are cut up into smaller sizes by grooving with the carborundum wheel, and then broken on the grooves by the use of steel wedges. Polishing has been greatly simplified by the new methods. It is now possible to take a slab directly from the saw to the polishing machine, thereby doing away with the leveling which formerly had to be done before polishing. A new type of polishing machine has been perfected which on a test polished a slab of granite in twelve minutes. The result of all these various improvements has done much to increase the output of granite and at the same time to reduce the cost.

The use of the sand blast is not exactly new, as it was known and used to a moderate extent over thirty years ago. At the present it is used very extensively for carving all forms of incised and surface ornament. Sand blasting is done by covering the surface of the stone with a rubber-like composition which, although easily cut with a knife, resists the eroding effect of the sand blast. The design is cut out of this covering and the blast of white silica sand is driven at a high velocity by means of compressed air through a controlled nozzle. This produces the incised design either complete or ready to be finished by hand cutting.

Granite is adaptable to all building purposes, either as an ashlar facing or as trim used in conjunction with other facing materials. One of the most recent developments in the use of granite which is due to the increased use of sawn stone is the stone veneer one and two inches thick, properly anchored to the backing masonry, and quirk mitered at the corners. This veneer can be given either a rubbed, honed, or polished finish, but due to the liability of breakage it can not be given any of the hammered finishes.

No matter what stone or other materials may be used for the facing of the street fronts of a building which is to be built in any large city, I would advise that the base course be of granite not less than two feet high and higher if possible. Also, all the exposed surfaces of the granite next to the sidewalks should be given a highly polished surface, as the polished surfaces will not catch and retain dirt and dust as will tooled or rubbed surfaces. It can not be easily marked and can be cleaned very readily. In all buildings of a public or semipublic character it is a very good practice to make all steps and thresholds of granite.

Limestones have been far more extensively used for building than any other stone, both in the past and at the present time. The earliest use of limestone of which I have any knowledge was in the building of the Pyramids, at least twenty-seven hundred years before the Christian era, and possibly as much as thirty-seven hundred years, as authorities seem to differ widely as to the exact date. Solomon's Temple was built in part of limestone, and the quarry from which the stone was taken is still operated. The Romans used a great quantity of travertine, which is a limestone, in their building construction. The Amphitheatrum Flavium, generally known as the Colosseum, was built of travertine, and some fifteen centuries later St. Peter's was built of the same stone. In both France and England, from the early middle ages down to the present time, practically all the important buildings are built of limestone. Portland stone, one of England's best known limestones, has been called "the building stone of London." The largest and most important building to be built of this stone is St. Paul's Cathedral. Much of the stone work is in a very fair condition after over two centuries of exposure to London fog, and to an enormous amount of soft coal smoke.

The use of limestone in this country did not begin until about the middle of the nineteenth century. This was due to a number of causes, among which was the fact that all of the great limestone deposits were located at a distance from the Eastern seaboard; therefore those localities were not settled until quite some time after the Revolution. Also, after the discovery of the stone, the great distance and the poor transportation facilities made it practically impossible to transport the stone to the large cities in the East. In spite of the rather late start which limestone received in this country, today it is used more extensively than all other stones combined.

Limestones are what is known as calcareous (containing lime) rock, and are of a sedimentary formation. They are generally regarded as having originated from chemical deposits or from the calcareous remains of marine animals. A great many limestone beds, as for instance the well known Indiana oolites, are products of a combination of these two processes. The shells of dead mollusks, corals, and crinoids were tossed about by the action of the waves until they were ground into grains of calcareous sand. Successive coats of lime in solution were subsequently deposited about and around each grain of this sand cementing it into a solid mass. Pure limestone is calcium carbonate, but practically no limestones are absolutely pure. Probably the nearest approach to an absolutely pure limestone is the Italian Travertine quarried at Tivoli (a few miles from Rome) which is practically pure calcium carbonate, with traces of iron and silica. Vermont marble is 99.174 per cent calcium carbonate, and some of the better known oolites run from 95.31 per cent to 98.23 per cent. Limestones are divided into two principal groups, the crystalline and the noncrystalline. All crystalline limestones are marbles, and as such will be discussed separately. Noncrystalline limestones are what are usually classed as limestones by the building trades. There are several different varieties of noncrystalline limestones, but the ones most generally used in building construction are the "oolitic" and the "magnesian" limestones.

Oolitic limestones are made up of small rounded concretionary grains that have become cemented together to

form a solid rock. These little rounded grains resemble the roe of a fish. This resemblance is the reason for the name which is derived from two Greek words *oon* meaning egg, and *lithos* meaning stone. Practically all of the most extensively used limestones, both in Europe and in this country, are "oolites."

The best known of the American oolitic limestones is the Indiana limestone. This deposit extends about sixty-five miles north and south and less than twenty miles east and west and is located in Lawrence, Monroe, and adjacent counties. According to the best authorities this enormous bed of limestone was discovered in 1818 by Dr. Winthrop Foote. About 1832 quarrying on a very small scale was started, but it was not until 1852 that a quarry of any size was opened. With the building of the railroad into Bedford in 1855 it became much easier to transport the stone, and in 1856 the stone for the Louisville Custom House, the first important building to be built of Indiana limestone, was quarried. The first Indiana limestone to be shipped to New York was in 1879. It was used in the construction of the William K. Vanderbilt residence, which was designed by Richard Morris Hunt, and stood for many years on the corner of Fifth Avenue and Fifty-Second Street. The Vanderbilt residence was the first building in the Eastern states to be built of Indiana limestone. The condition of the stone when this building was razed forty-five years later proved very conclusively that Mr. Hunt's confidence in the stone was not misplaced. In looking over his work, it would seem that Mr. Hunt always favored the light colored limestones, as he used Indiana limestone on practically all of his larger and more important buildings.

Indiana limestone ranges in color from a rather light grayish buff, through silvery gray to medium-toned gray with a slightly bluish cast and mixtures of both gray and buff. "Buff" and "gray" are the uniform color classification of the Indiana Limestone Institute and used by practically all producers. It is a dense even textured stone, and is known as a freestone. That is it has no natural cleavage plane, is equally strong in all directions, can be worked freely in any direction, and can be set at any angle to the plane of its natural bed. On account of the structure of the stone it is possible to quarry enormous monoliths from it, with very little if any risk of breakage. Recently sixty-two stones, thirty-eight feet long by six feet square, each weighing one hundred and seventy-six thousand pounds were quarried. These stones were turned into column shafts thirty-five feet and eleven inches long, with a diameter of five feet and five inches at the base and weighing one hundred and twenty-three thousand pounds. These columns which are next to the largest monolithic columns in this country were used in the construction of the Mellon Institute in Pittsburgh.

Like other stones Indiana limestone is now being cut and worked by a number of new and improved methods. As with the granite industry, the carborundum wheel has done much to revolutionize the methods of production. All sawing, turning, shaping, moulding and other rough work is now done by machine. In addition to the sand sawing which has always played and still plays a prominent part in the production of limestone, shot sawing has been perfected of late years. This process gives textures ranging from a medium-rough pebbled surface to an irregularly grooved surface to the stone. It is produced by the addition of either chilled steel shot or crushed steel to the sawing sand. The textures vary according to the size and the amount of the shot or the steel particles. This finish is very effective and quite inexpensive. It has been used very successfully on various types of buildings, ranging from moderate priced suburban residences to large office buildings in some of the largest cities.

To attempt to enumerate the prominent buildings on which Indiana limestone has been used would be practically impossible, but two of the largest achievements in the use of this stone are the Empire State Building, the tallest building ever erected, and the Department of Commerce Building which, when completed, will be the largest office building in floor area in the world. Both of these buildings are faced with Indiana limestone.

An excellent oolitic limestone is being quarried at the present time in Franklin County in the northwestern part of Alabama. This stone was known and used over one hundred years ago and was quarried in a desultory manner for some years. Quite recently the quarries were equipped with up-to-date machinery and a modern cutting plant was built, so the stone is now available in large quantities. This stone is a dense, even textured stone, entirely free from flint and contains over ninety-eight per cent calcium carbonate. It is practically free from petroleum, the presence of which is a common failing with most stones of that type. In color, it ranges from clear white to grayish and bluish shades. The white stone weathers to a soft creamy tone. One of the largest buildings, if not the largest on which this stone has been used, is the City Bank Farmers Trust Building, in New York City.

Oolitic limestones are quarried to some extent in Texas, and one of the stones from these quarries is very similar to the famous Caen stone, which is quarried in Normandy. To the best of my knowledge these Texas limestones have never been used to any extent outside Texas and the adjoining states.

Bowling Green stone is an oolitic limestone quarried at Memphis Junction in Warren County, Kentucky. In composition it is almost identical with the famous English Portland stone. This stone weathers quite white. It has been used quite extensively in Louisville, Kentucky, and Nashville, Tennessee, and has stood up very well. St. Thomas' Church in New York was built of this stone. It has only one bad fault, which is that it contains quite a large amount of petroleum. This gradually weathers out of the stone, but for some time after it has been set it looks bad, showing numerous brown stains.

Magnesian limestones are limestones either crystalline or noncrystalline which contain ten per cent or more of carbonate of magnesia. If the limestone contains as high as 45.65 per cent carbonate of magnesia it becomes a "dolomite." So-called for Dolomieu (1750-1801), the great French geologist. Dolomites are much harder than the ordinary limestones. The principal magnesian limestones in this country which are used for building purposes are quarried in Minnesota, at Mankato, in Blue Earth County, and at Kasota, in Leseur County. These stones are generally classed as dolomites, although they only average about thirty-nine per cent carbonate of magnesia, which is lower than the true dolomites. These stones are of moderately fine texture, very hard and nonabsorbant. In color they range from gray, through various shades of yellow from light to dark, and pink. The pink stone is a sounder stone than the yellow or the gray. These magnesian limestones have been used quite extensively in St. Paul and Minneapolis for some years, and a number of very fine buildings have been built of them. The largest building outside the State of Minnesota built of one of these stones is the Art Museum at Philadelphia, which is built of Mankato stone.

(To be concluded in the January issue)

FREESE'S CORNER

Editor's Note:—*Ernest Irving Freese here answers inquiries on problems involving geometry or mathematics that have practical value to the draftsman or that, in one way or another, find application in drafting room work. Address your problem to Freese's Corner,* PENCIL POINTS, *419 Fourth Avenue, New York.*

TURNING THE "TRICK"

B. C. H., down in Alabama, wants to know some "trick" of geometry whereby a correct perspective can be laid out at 1½" scale, the station point and both vanishing-points being "over in the next county." He submits a problem which, if worked out in the ordinary way, would require a board-space measuring 7'-0" by 3'-10". At Figure 5, herewith, I submit a solution of the same problem worked out on a board but 24" by 16" in size.

First draw the *plan* and the *projected elevation* at one half the scale of the proposed perspective. Locate the station point in *plan* and in *elevation* at the same scale. Project visual rays from each point of the *plan*, and from each corresponding point of the *projected elevation*, to intersect the *normal picture plane*. Now place this *plan* and *projected elevation* in the position indicated, that is, so that the *normal picture plane* lies at an angle of *45 degrees* to the horizontal. Or, if you so choose, you can draw them directly in this 45-degree position, as shown.

Now, in *plan*, the distance *AB* on the *normal picture plane* is the maximum horizontal extent of a normally-projected perspective; and, similarly, in *projected elevation*, the distance *CD* on the *normal picture plane* is the maximum vertical extent of a normally-projected perspective. But the perspective must be projected at *double* its normal size. Hence, magnify the aforementioned distances *AB* and *CD*, and all other distances along the *normal picture plane*, by the following perfectly general method:—

Through the extreme points *A* and *C*, of the *normal picture plane*, draw the horizontal and vertical *enlarging picture planes* as shown, which places them at *45 degrees to the normal picture plane* and, necessarily, *90 degrees apart*. Next, in accordance with the desired enlargement of the perspective image, make *AB′* equal twice *AB*; and make *CD′* equal twice *CD*. Then, in directions paralleling *BB′* and *DD′*, respectively, project all other points from the *normal picture plane* to their corresponding coordinate locations on the *enlarging picture planes*, as indicated.

Slide your T-square to a point on the vertical plane. Slide a triangle to the same corresponding point on the horizontal plane. The intersection of the T-square and triangle edges mark that particular point in *perspective*. Fix the other perspective points in the same manner. Connect them by lines: *the perspective image appears!*

The above method produces exact perspectives at *double* the scale of the plan. The enlarging process is an obvious utilization of the linear proportionality of similar triangles. The method of "PERSPECTIVE PROJECTION" here employed, which eliminates "vanishing points" and all other "machinery" commonly thought essential to the production of exact perspectives, can be completely mastered in a couple of hours' study of the author's book *PERSPECTIVE PROJECTION*, published by PENCIL POINTS PRESS, August, 1930. Send 'em a dollar-and-a-half . . . . that'll add another *fifteen cents* to my income, and another PENCIL POINTS book to your library . . . . and we'll *both* be satisfied!

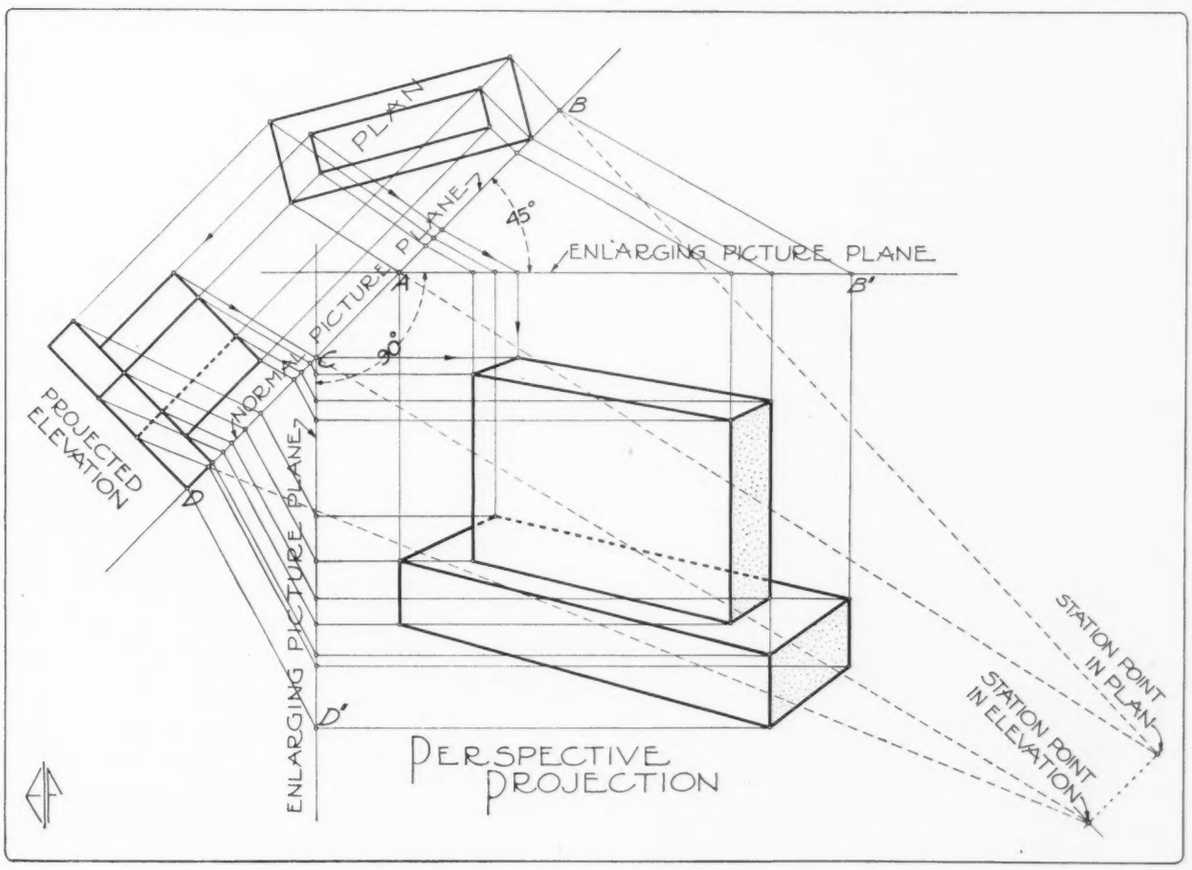


FIGURE 5

SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale, or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions. Such notices will also be posted on the job bulletin board at our main office, which is accessible to all.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire concerning it.

Notices submitted for publication in these Service Departments must reach us before the fifth of each month if they are to be inserted in the next issue. Address all communications to 419 Fourth Avenue, New York, N. Y.

THE MART

Fred J. Schmidt, 4924—10th Avenue, Los Angeles, Calif., has for sale or trade a Cassell Perspective Indicator, never used.

Edgar Ruggles, 417 N. Milton Drive, San Gabriel, Calif., has for sale all copies of PENCIL POINTS from October, 1929, to present date.

Arthur J. Lichtenberg, 27 Lee Ave., Trenton, N. J., has for sale the following copies of the *White Pine Series of Monographs:* Volume 2, Numbers 1, 3, and 6; Volume 3, Numbers 1 and 3. Price $1.00 each.

Keith Schwinley, 1711 H. Street, N. W., Washington, D. C., wishes to purchase the following copies of PENCIL POINTS: January to June, inclusive, 1925; April, 1926, and May, 1927.

M. Silver, 363 East 26th Street, Brooklyn, N. Y., has a transit for sale, fine condition.

Thos. Rollands, G. P. O. Box 57, Cleveland, Ohio, has the following copies of PENCIL POINTS for sale: all copies for 1926 except March, July, and August; 1927 complete; and January, 1928.

Frederick H. Stahl, 402 West Walnut Lane, Germantown, Philadelphia, Pa., has a collection of 15000 architectural plates and pages from the last eight years' issues of PENCIL POINTS, *The Architect*, *The American Architect*, *Architectural Record*, etc., all filed, trimmed, and classified. All or part for sale, or in exchange for steady position for one year or more. Fifteen years' experience as draftsman.

Ernest L. Stouffer, 256 Administration Bldg., Urbana, Ill., has for sale complete architectural office equipment, including cabinets, drawing tables, desks, safe, typewriter, up-to-date plate file, manufacturers' catalogs on shelf and in A.I.A. file, also library. Sold only as a whole at purchaser's price.

Leo I. Perry, 79 E. Philadelphia, Detroit, Mich., has for sale seven bound volumes of the *Architectural Record*, 1924 to 1927, inclusive.

Wm. S. Watts, 7719 Lexington Avenue, Cleveland, Ohio, has for sale all copies of PENCIL POINTS from August, 1925, to October, 1929, inclusive. Good condition. Postage to be paid by purchaser.

Space to share with Architect or Engineer. Large drafting room, two private offices, waiting room, a library and a stenographer's room. Arthur Weiser, 510 Madison Avenue, New York. Phone PLaza 5-2117-8.

PERSONALS

CATHERINE H. PIERSON, Southern Pines, N. C., requests manufacturers' literature.

HENRY R. DIAMOND, Architectural Renderings, New York, has a new telephone number, LE 2-3838.

RAYMOND G. JOHNSON, ARCHITECT, AND GEORGE R. OTTO, ASSOCIATE, have opened an office for the practice of architecture at 509-510 Ayers National Bank, Jacksonville, Illinois, and would like to receive manufacturers' catalogs.

CLARENCE KOVOVITCH, ARCHITECT, has opened new offices at 504 Victor Building, Kansas City, Mo.

SAMUEL Z. MOSKOWITZ, ARCHITECT, has opened an office for the practice of architecture at 578 Madison Avenue, New York, and requests manufacturers' catalogs.

JOHN W. MALONEY AND WALLACE W. MACDONALD, ARCHITECTS, Yakima, Washington, have opened a branch office for the general practice of architecture in the Doneen Building, Wenatchee, Washington. They would like to receive manufacturers' literature.

S. WALTER KATZ, ARCHITECT, is no longer a member of the firm of George & Edward Blum, and has opened his own office at 49 W. 45th Street, New York.

FRAZIER & RAFTERY, INC., ARCHITECTS, have moved to 664 N. Michigan Avenue, Suite 1030-1040, Chicago, Ill.

EDMUND LUMLEY, ARCHITECT, has discontinued his office at 1204 Broadway, New York. He will continue the practice of architecture at his studio located at 254 Lena Avenue, Freeport, New York.

ROBERT L. CLEMMER, DRAFTSMAN, 1330 Union Square, Hickory, North Carolina, is operating a branch office here for M. R. Marsh, Architect. He desires to receive manufacturers' literature.

HENRY ERNST REUTHER, ARCHITECT, formerly with The Refiners Oil Co., has opened his own office at 32 Indiana Avenue, Dayton, Ohio, for the practice of architecture, and requests manufacturers' catalogs.

C. BERTRAM FRENCH, ARCHITECT, has moved his office from New York, to 31 East Ridgewood Avenue, Ridgewood, N. J.

EMERY ROTH, ARCHITECT, has moved his office from 1440 Broadway to 18 E. 48th Street, Rooms 1405-7, New York.

F. LEO SMITH, member of the Columbus Chapter of The American Institute of Architects, has succeeded LeRoy E. Kern as Technical Secretary of the Structural Service Department of the Institute, The Octagon, 1741 New York Avenue, Washington, D. C.

EMPLOYMENT SERVICE ITEMS WILL BE FOUND ON PAGE 50, ADVERTISING SECTION

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WE HOPE that those who have followed Ernest Watson's instructive Eldorado Pencil Talks in *Pencil Points* during 1931, have gained a new wisdom in the use of the pencil. For opacity of line, for responsiveness, for correctness of grading, its leads make Eldorado "the master drawing pencil." Architects, write for samples. Eldorado Sales Dept., 167-J, Joseph Dixon Crucible Company, Jersey City, N. J.

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WRITING THE SPECIFICATIONS FOR METROPOLITAN SQUARE

(Continued from page 933, Editorial Section)

the specification writer and on the drawings.

In writing specifications Mr. Sanger uses what he calls his ready reference file, which in general is arranged in the order of the headings listed above. This file is used in addition to the regular A.I.A. Filing System. In such a colossal undertaking as Metropolitan Square the process of elimination is essential, so that Mr. Sanger has developed this subfile in which he keeps data on the materials which have been investigated for possible use in carrying out the construction and the designers' ideas. In this way a convenient reference is available when the specifications are being written.

A research department is maintained in connection with this work. Color studies are developed by the designers and various materials suggested to secure the effects desired. Samples of the suggested materials are secured and are thoroughly investigated and if necessary are tested before their use is definitely decided upon. The designs in general are studied by means of models. The entire development of the site is studied in this way and larger scale models are made for such details as the main interiors, exterior entrances, parapets, etc.

The Structural Steel Specifications are being written by H. G. Balcom and those for the Mechanical Trades by Clyde R. Place.

Mr. Sanger realizes that the services and cooperation of contractors and material producers are essential to the success of any building operation and he has given generous acknowledgment of this in the past. He endeavors to grant an interview to representatives whenever possible. However, due to the stress of work, it is very often impossible to spare the time consumed by continual interviews, especially in the case of frequent callers.

Little is usually known about those who prepare the specifications for our important buildings and their methods are seldom published for the benefit of others who are preparing specifications. It is a pleasure, therefore, for us to acquaint our readers with the facts surrounding the production of the specification documents for such an important project as Metropolitan Square.

THE DRAFTSMAN'S LIBRARY

(Continued from page 929, Editorial Section)

"The larger part of the book is devoted to the public service achievements of the American Institute of Architects of which for fifteen years I was Secretary.

"While I will never forget Joseph A. Cannon, our constant and able opponent, my most vivid memories are of Charles Follen McKim, Augustus Saint-Gaudens, Francis Davis Millet, Cass Gilbert, Theodore Roosevelt, William H. Taft, Elihu Root, and James Bryce, without whom we would have accomplished little."

The book will be read with interest by many who are not architects for its valuable hints in relation to many socio-political problems which must be dealt with in future by the National Government. The personal circumstances by which Mr. Glenn Brown came to be known to Senator MacMillan and, therefore, later as Secretary of the A.I.A., in a position to attract the Senator's attention to the L'Enfant plan; how McKim, Burnham, and others were enlisted into the campaign to establish a plan that would put an end to the damage done to the city by stupid engineering work; the personal gains through prestige and publicity to participants, and the general gains to the status of architects and the American Institute of Architects in particular, will be observed with interest by all students of politics, but particularly by those who may have campaigns of their own in prospect. Many will note with amusement the acts resulting from social understanding and its influence in overcoming resistance.

1860-1930 *Memories* by Glenn Brown ranks as another valuable contribution, along with his *History of the United States Capitol*, to the history of civilization in the United States. It is written in an entertaining and readable style, affording as much enjoyment as a good historical novel.

BUILDING STONE EXHIBIT

The United States National Museum in Washington has an exhibit of building and ornamental stones assembled and arranged by the late Dr. George P. Merrill, of that Institution. This exhibit is very complete, containing upward of twenty-six hundred specimens and covering practically all types of structural and monumental stones, representative of all leading quarries in the United States and the important foreign ones. It will be of interest to our readers to note that David B. Emerson in his article on *Building Stone*, which begins in this issue, has referred for some of his information to the writings of Dr. Merrill.

NOTES ON COLOR PLATE

(Continued from page 920, Editorial Section)

dark outlines and masses in relief. The paper was afterwards removed by sponging with water.

"A printers' brayer charged with black printing ink was next rolled across the engraved block and proofs were made on ordinary tracing paper by rubbing on the back of the paper, while in contact with the inked block, with a burnisher known in Japan as a baren.

"To make a block which will print colors it is necessary to take one of these proofs while wet and lay it face down on a clean piece of linoleum the same size as the key block and rub hard on the back of proof with the baren or a spoon. This makes an offset print on the block and shows one how to plan the color spaces.

"With a V-shaped gouge, a channel is cut around the various color spaces, thus making a series of islands. The colors (printers' inks) are applied to these island spaces with sable brushes using a small quantity of kerosene with which to thin them.

"When all the color spaces are painted a print is made by laying a sheet of Japanese Hosho paper on the block and rubbing hard on the back with the baren.

"After printing the colors, the key block is inked with the brayer charged with black or dark blue printing ink and the inked key block is laid face down on the color impression. The paper is turned over and rubbed on the back with the baren until all the ink has been taken up by the paper which must always be absorbent.

"Prints of this character can not be made in a commercial printing press and therefore each one has an individuality all its own, when thus printed by hand. Only two blocks were used to print this picture.

"If one wishes, he may cut a separate block to print each color. This is frequently done but the printing requires great accuracy in registering each color block and makes the printing a very much more difficult proposition than the single color block with each color space separated by channels. The latter method is more tedious to print but takes less time to cut and simplifies the registration."

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PENCIL POINTS

A JOURNAL for the DRAFTING ROOM

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These two distinctive homes are glazed with L·O·F Quality Glass, a vital factor in achieving their air of distinction.

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Upper—Residence of Mr. Harry L. English, Atlanta. Lower — Mrs. J. J. Goodrum's home, Atlanta. Architects: Hentz, Adler & Shutze. Contractors: Collins, Holbrook & Collins, Atlanta.

THEIR graciousness and symmetry of line; the cordial greeting that their *atmosphere* extends; the cheery sparkle, brilliant polish and lasting beauty of their windows, all say, "I was created by an architect who specified only the finest."

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Pencil Points, published monthly by The Pencil Points Press, Inc., at 258 Atlantic St., Stamford, Conn. Publication office Stamford, Conn. Editorial and Advertising Offices 419 Fourth Avenue, New York, N. Y. Yearly subscription $3.00, single copies 35 cents. Entered as second class matter, March 10, 1930, at the Post Office, Stamford, Conn., under the Act of March 3, 1879. Volume XII, No. 12. Dated December, 1931

SKETCH of Tower Petroleum Building, Dallas, Texas, Mark Lemmon, Architect. Atlantic Terra Cotta in the modern style was used —colorful green spandrels, pier trim and pylon caps in buff to harmonize with exterior, all achieving a remarkable flood-lighting effect at night, a distinctive beauty by day.

Modern ~~~ ATLANTIC Terra Cotta

ARCHITECTS and draftsmen are invited to write for illustrations of recent Atlantic Terra Cotta applications as, (a) a facing material for the entire structure, (b) wall units for facing corridors, lobbies, etc., and (c) as an unequalled form of exterior and interior ornamentation.

No material is better adapted to the stringent requirements of modern architecture than is Atlantic Terra Cotta. Its wealth of color, its versatility as to shape and design, warrant the use of Atlantic Terra Cotta in this modern age. But there are other advantages too. Fire-resistance, insulation against heat, cold and sound, *permanence*, and a surface finish that produces splendid flood-lighting effects, are assured qualities of Atlantic Terra Cotta. Important also are ease of erection and reasonable cost . . . Atlantic Terra Cotta is being used in all types of modern building construction because it is so completely in step with the changing conditions identifying architecture of the present day.

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When architects design public buildings—structures that house highly valuable property and personnel—they usually specify A. D. T. Protection Services.

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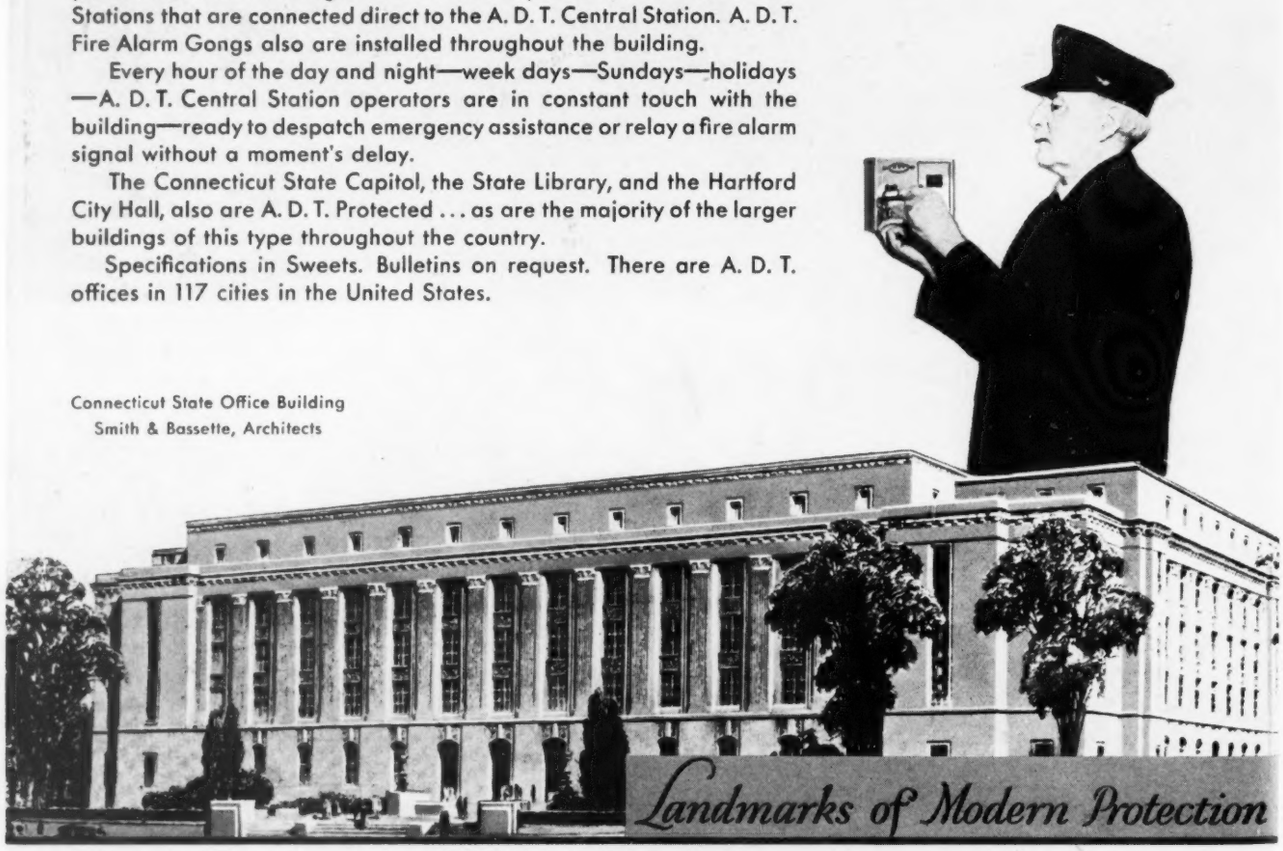
Every hour of the day and night—week days—Sundays—holidays—A. D. T. Central Station operators are in constant touch with the building—ready to despatch emergency assistance or relay a fire alarm signal without a moment's delay.

The Connecticut State Capitol, the State Library, and the Hartford City Hall, also are A. D. T. Protected . . . as are the majority of the larger buildings of this type throughout the country.

Specifications in Sweets. Bulletins on request. There are A. D. T. offices in 117 cities in the United States.



Connecticut State Office Building
Smith & Bassette, Architects

Landmarks of Modern Protection

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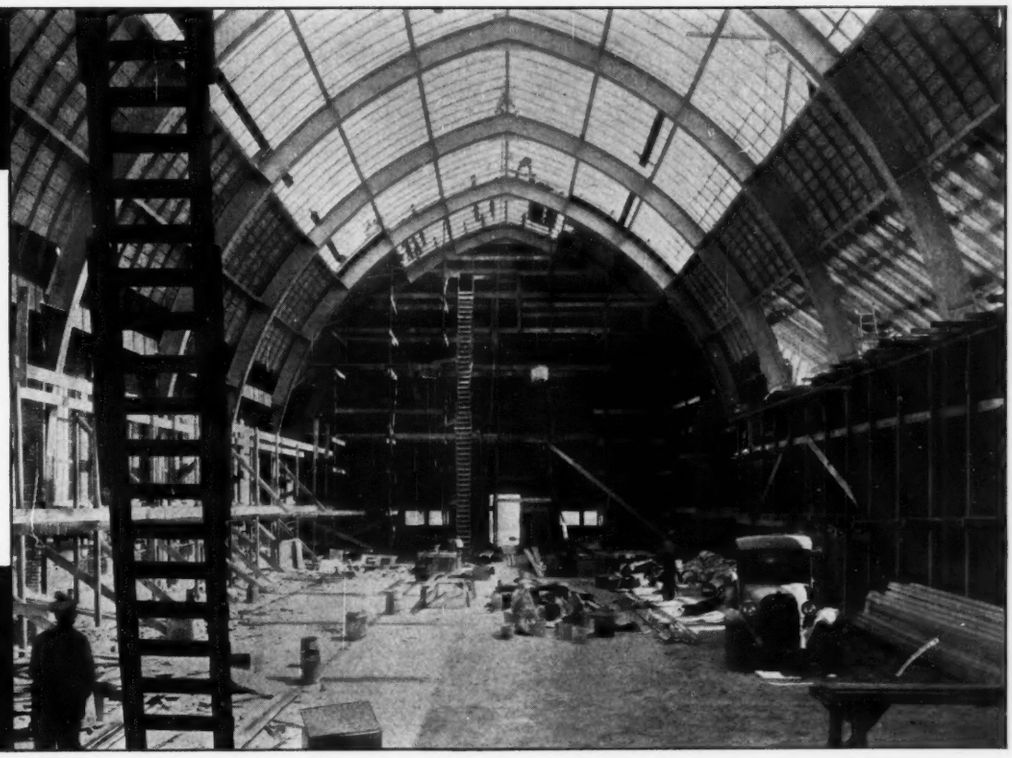
WINTER LOSES
when CORK *guards indoor tennis court*



YEAR ROUND TENNIS *is possible here because of Armstrong's Corkboard Insulation. Estate of former U. S. Senator L. C. Phipps, Denver, Col. Architect John Gray. Contractor, Platt-Rogers, Inc., Pueblo.*

EVEN a Colorado winter can't stop tennis on the estate of ex-Senator Phipps in Denver, Colorado! For the court is enclosed, and Armstrong's Corkboard insulates the building. Furnace heat, supplied through radiators set in cork-insulated recesses along the wall, stays inside!

The architect, John Gray, of Pueblo, made full use of the decorative possibilities of the cork. Each board was given a coat of cream-colored paint before it was erected, adding greatly to its attractive appearance. Because of its high insulating value, resistance to moisture, structural strength, and light weight, corkboard is the choice of many architects for all types of buildings.

* * *

You'll find Armstrong products have a wide application in the building industry. Armstrong's Corkboard provides ideal insulation for the walls and roofs of normally heated buildings, as well as for installations where low temperatures must be maintained. Armstrong's Cork Covering protects cold lines. Insulating Brick help control *high* temperatures. Many architects use them in hotels and apartment houses to protect adjacent rooms from the heat of stacks.

Armstrong's Vibracork absorbs vibration and muffles the noise that it causes. Under moving machinery, it eliminates vibration annoyances. Armstrong's Corkoustic quiets airborne noises and provides better hearing conditions. Literature describing all these Armstrong products, and samples of each are available on request. Armstrong Cork & Insulation Company, 902 Concord St., Lancaster, Pennsylvania.

Armstrong's (A) *Product*

FOR PUBLIC ARENA, TOO

The Boston Garden, huge public arena of the Boston & Maine Railroad, in Boston, Mass., has used 100,000 *board feet of Armstrong's Corkboard and three tons of granulated cork. Architects, Finck & Wilcox. Contractor, Dwight P. Robinson Company.*

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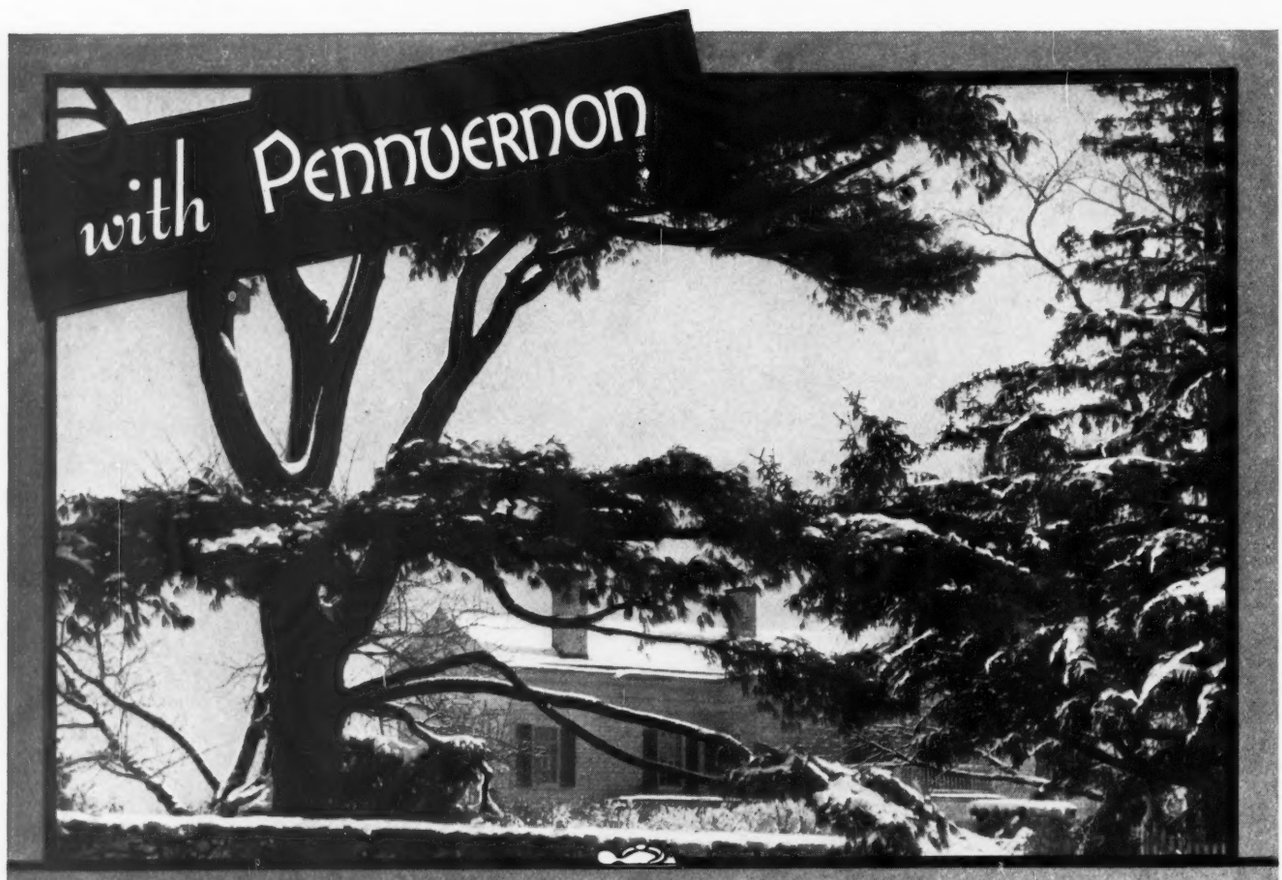
CORKBOARD . . . CORK COVERING

VIBRACORK . . . CORKOUSTIC . . . INSULATING BRICK

Larger Windows mean *brighter* Homes



LARGER windows enable architects to build into the home the beauty of outside scenes—clear, attractive views that only the finest window glass can transmit faithfully and fully. They have discovered in Pennvernon Window Glass the outstanding qualities essential for brighter homes. Remarkable clearness and freedom from distortion are assured by the exclusive process of Pennvernon manufacture, which makes and keeps the glass perfectly flat throughout.

More than this, large windows glazed with Pennvernon Window Glass reflect the landscape so truly and so clearly that they greatly enhance the architectural beauty of the building. No marring of the design by noticeable distortion. Pennvernon's smooth, lustrous finish on both sides gives a lasting brilliance, which results in 100% better reflection.

We shall be glad to have you check for yourself the qualities of this finer glass. It is available at the warehouses of the Pittsburgh Plate Glass Company in every leading city, and through progressive glass jobbers. For samples and our booklet describing Pennvernon manufacture, address the Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Penna.

PENNVERNON
flat drawn
WINDOW GLASS

ANSWERING 5 QUESTIONS ABOUT RAYMOND CONCRETE PILES ...

NOTE:

These five questions are most commonly asked regarding standard tapering Raymond Concrete Piles. The brief answers here will be amplified upon request . . Write us.

1—"WHAT DOES THE PILE CONSIST OF?"

Concrete, poured into a spirally reinforced steel shell which is left in the ground.

2—"HOW IS IT PLACED?"

The shell is first driven by a mandrel, which is then withdrawn. The concrete is then placed into the shell interior.

3—"DO THE SHELLS RUST OUT? IF SO, WHAT HAPPENS?"

The shell may rust eventually although the excavation of piles in service ten to fifteen years does not disclose deterioration of steel. If the shell does rust the iron oxide occupies twice the volume of the metallic iron, thereby increasing the ground friction.

4—"WHAT EFFECT HAS CLOSE DRIVING ON A NEARBY FRESHLY FILLED PILE SHELL?"

No effect. Raymond Concrete Piles can be driven on 2'6" centers. The reinforced steel shell resists any compression or shock set up by such driving. That is one reason why it is left in the ground.

5—"WHAT LOAD WILL THE PILE CARRY?"

Always full rating. Many hundreds of tests on-the-job demonstrate that Raymond Concrete Piles show either no settlement, or settlement so small as to be negligible.

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KOHLER MATCHED FIXTURES

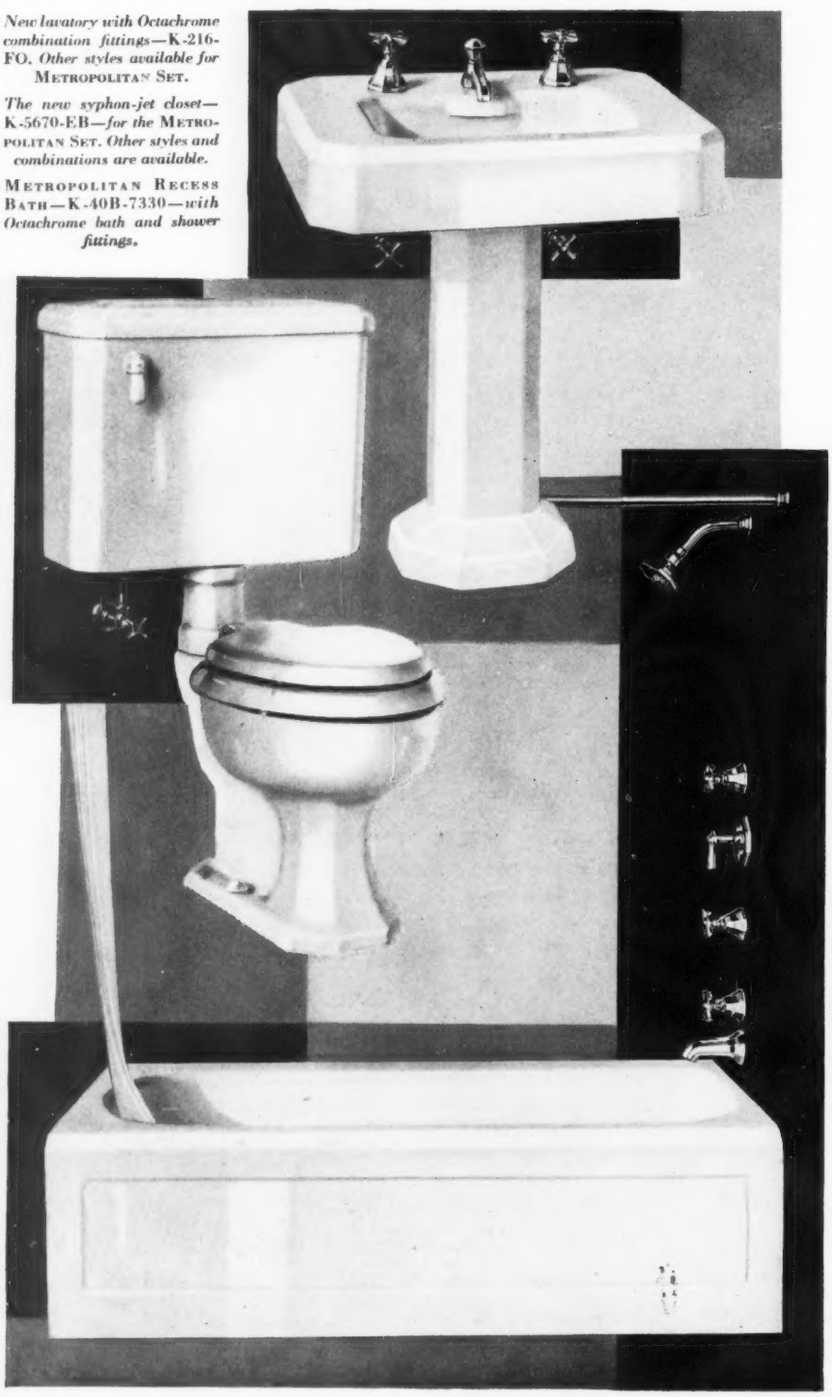
give you something new to say

. . . . and specify!

New lavatory with Octachrome combination fittings—K-216-FO. *Other styles available for* METROPOLITAN SET.

The new syphon-jet closet—K-5670-EB—*for the* METROPOLITAN SET. *Other styles and combinations are available.*

METROPOLITAN RECESS BATH—K-40B-7330—*with Octachrome bath and shower fittings.*



EVER since Kohler announced that, for the first time in the history of the plumbing industry, you could write-in *matched sets* of fixtures and fittings, architects have been thinking quick and working fast. Right now, many are *proving* that this new departure walks away from the beaten track by putting more Kohler sets into their plans.

We can say flatly that this step by Kohler marks the first definite advance in the industry for years. (You have been able to match up your own sets before, of course, and to accept the manufacturer's suggestions.) But never before have you been able to use sets of fixtures that agree in every detail of design and construction — from smooth shining surface to distinguished fittings.

Made for each other, down to the last detail

The illustrations show clearly the features you can explain to clients. Notice how each piece harmonizes with the others. Edges are square. Corners, usually rounded, turn at abrupt angles. Rims are conveniently wide and flat, affording ample room for shaving cream, tooth-brush, powder. Surfaces are plain and modern.

Yet Kohler matched fixtures are popularly priced! Designs are so planned that a selection of other fixtures in the same set can be made to fit purse and purpose. The closet, for example, comes in syphon jet, reverse trap and wash-down models, and in tank or flush valve combinations. The point is that with any fixtures in a particular group, the entire installation is a decorative unit.

If possible, drop in a Kohler showroom and see the fixtures at first hand. Kohler Co. *Founded* 1873. Kohler, Wis. — *Shipping Point*, Sheboygan, Wis.—*Branches in principal cities.* Look for the Kohler trade-mark on each fixture and fitting.

KOHLER OF KOHLER

TWO QUESTIONS

1 Why are leading pipe manufacturers offering pipe in all sizes with beveled ends for welding?

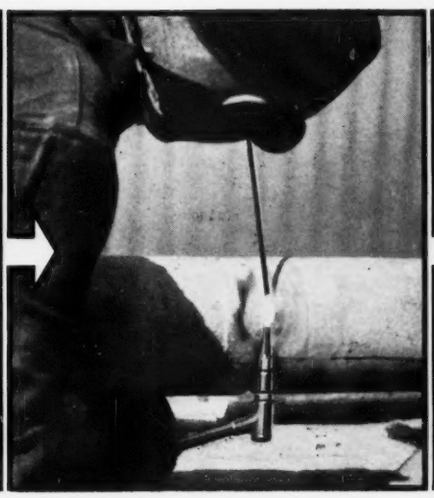
2 Why are established makers of pipe fittings now producing tees, elbows, flanges, and short- and long-radius turns for welding?

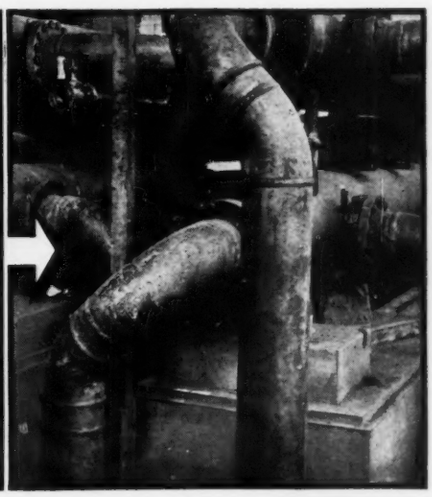
—AND AN ANSWER TO MANY OF YOUR PIPING PROBLEMS

THE ANSWER IS: Because oxy-acetylene welding is now accepted as an economical and dependable method of installing piping systems in office buildings, factories, churches, schools, hospitals, and private homes.

Architects and engineers are specifying oxwelded piping because welding eliminates the chief causes of leakage, friction, radiation losses, and insulation expense. Welded systems are more compact, lighter, stronger, and easier to design and construct. Their first cost is less, and maintenance is negligible.

If you feel that these inherent advantages of oxwelded systems merit further investigation, send today for "Oxwelded Construction for Modern Piping Services," "Design Standards for Oxwelded Steel and Wrought Iron Piping," and "Fabrication of Welded Piping Designs." These books are offered without charge or obligation to architects, specification writers, and engineers.





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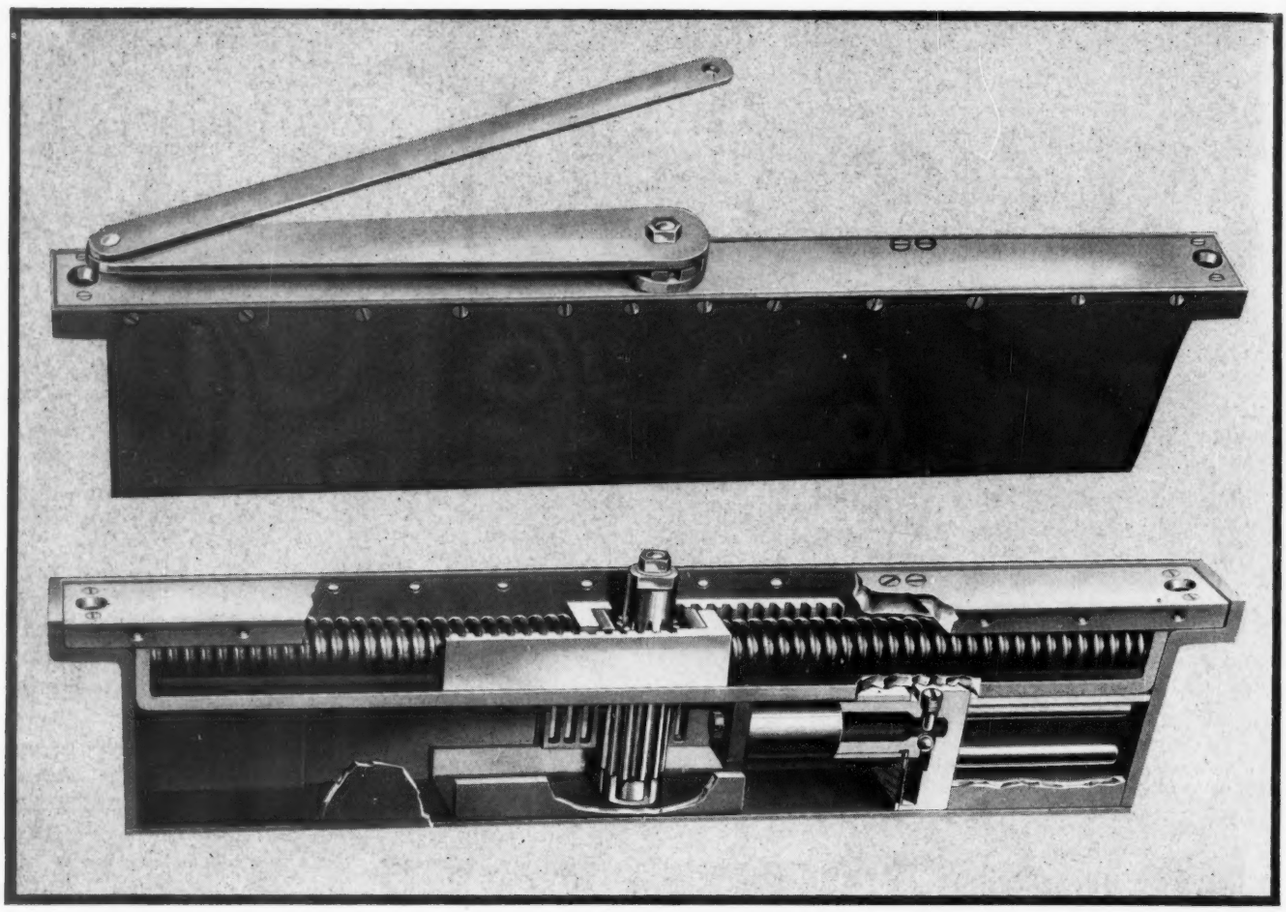


An ANNOUNCEMENT *of considerable importance to* ALL *architects*

IT IS with unusual pleasure that Yale & Towne announce the long-sought development in door controlling devices—a CONCEALED Door Closer. This is in every sense as efficient as the best of the conventional type.

Remember, years of Yale & Towne research and a lifetime of experience in manufacturing the finest locks, hardware, door closers, etc., are behind this new development. You can specify it with absolute certainty that it will function perfectly.

Naturally, in this two-page announcement, we cannot cover all the virtues and advantages of this remarkable development—its rugged construction, its ability to close a heavy door against a strong draft, its quiet and easy operation and its many other good points. You will want to know more about this new YALE Concealed Door Closer and we suggest that you send for a copy of our illustrated folder giving full details. On the facing page are given a few of the more important constructional features that you will recognize as vital.

THE NEW TRADE YALE MARK *concealed* DOOR CLOSER

It is mortised into the door like a lock and can be used for both wood and metal doors.

It is equipped with a hydraulic checking cylinder whose piston is operated by a rack and pinion. This means checking control over the entire range of the device.

It is so constructed that the turning force is balanced through the action of compression springs. This means very little side pressure on the shaft bearings and therefore a high rate of efficiency.

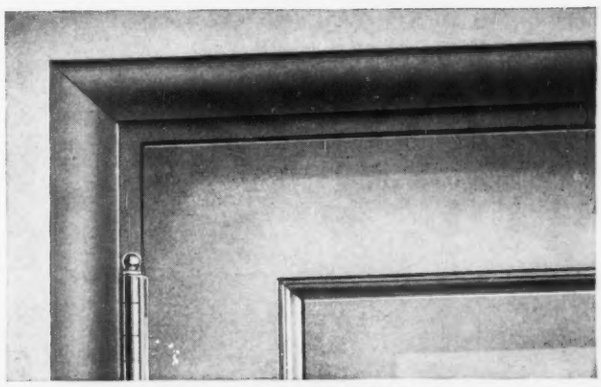
It is easily regulated, noiseless and smooth in operation.

It permits the door to be opened 180 degrees—that is, flat back against the wall.

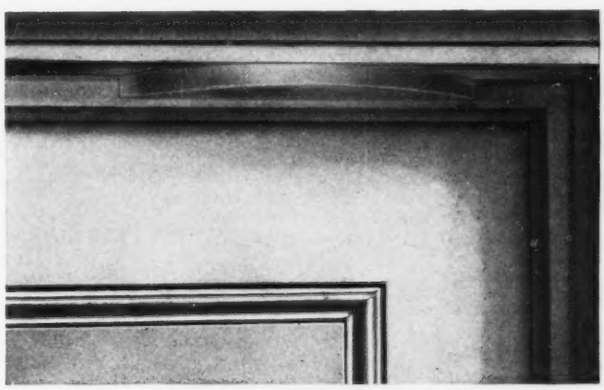
DONT *forget to send today for the illustrated folder giving all the details of this very interesting YALE Concealed Door Closer.*

Let us know something of your particular problems. Your inquiry will have our prompt and careful attention.

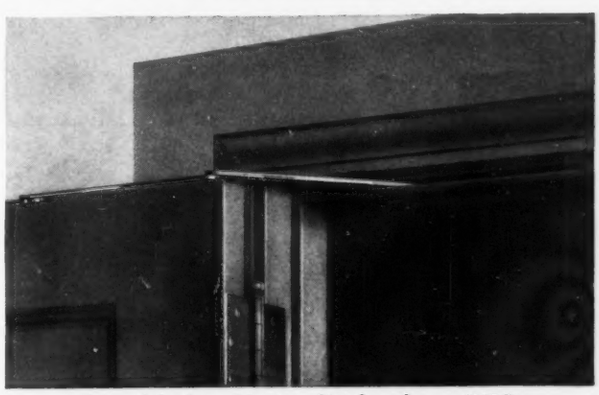
The YALE & TOWNE MFG. CO.
STAMFORD, CONN., U. S. A.



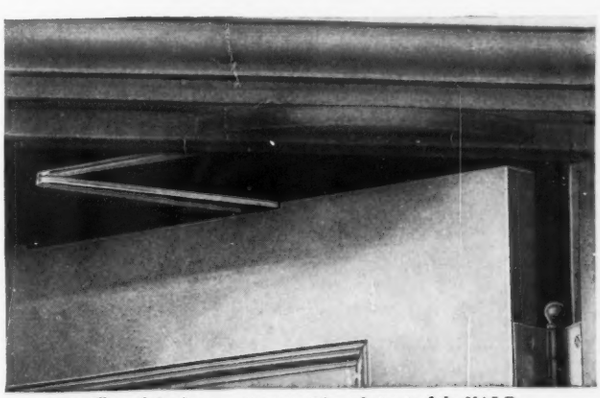
View from inside of door equipped with the new YALE Concealed Door Closer. Note the entire absence of any evidence that the door is thus controlled.



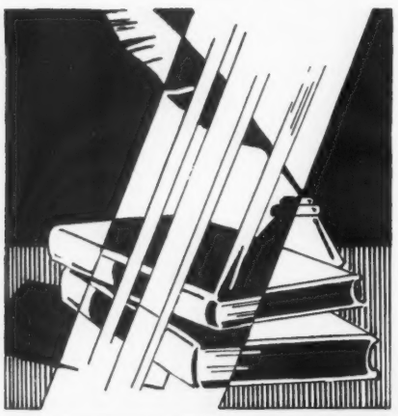
View of the same door from the outside. The only external indication of the closer is the small additional member on the trim to permit the action of the arm.



View of the door wide open. Note how the new YALE Concealed Door Closer permits the door to open the full 180 degrees—all the way back to the wall.

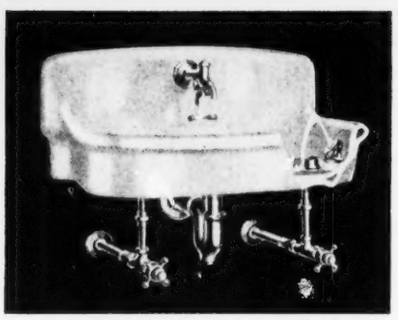


View of the door partly open. The only part of the YALE Concealed Door Closer in evidence is the slender arm that controls the door.



NOW... as always... the favorite specification for SCHOOLS

New Walnut Hills High • Cincinnati, Ohio • Garber & Woodward, Architects



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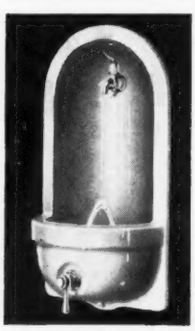

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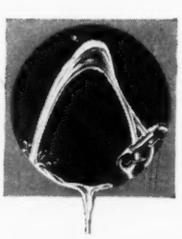
Types used in above building are No. 611, battery type; No. 631, semi-recess; No. 616, pedestal; and No. 605, wall-type, the latter not illustrated. All have the distinctive two-stream Halsey Taylor projector and practical automatic stream control!

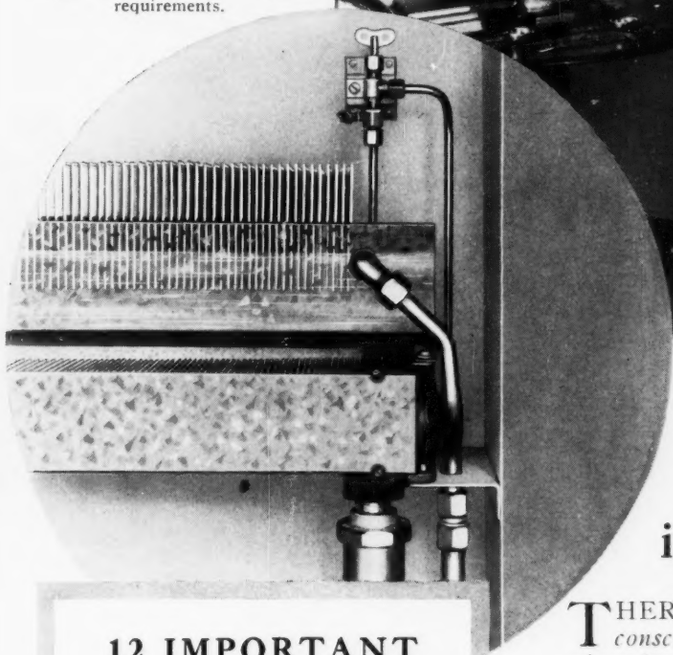


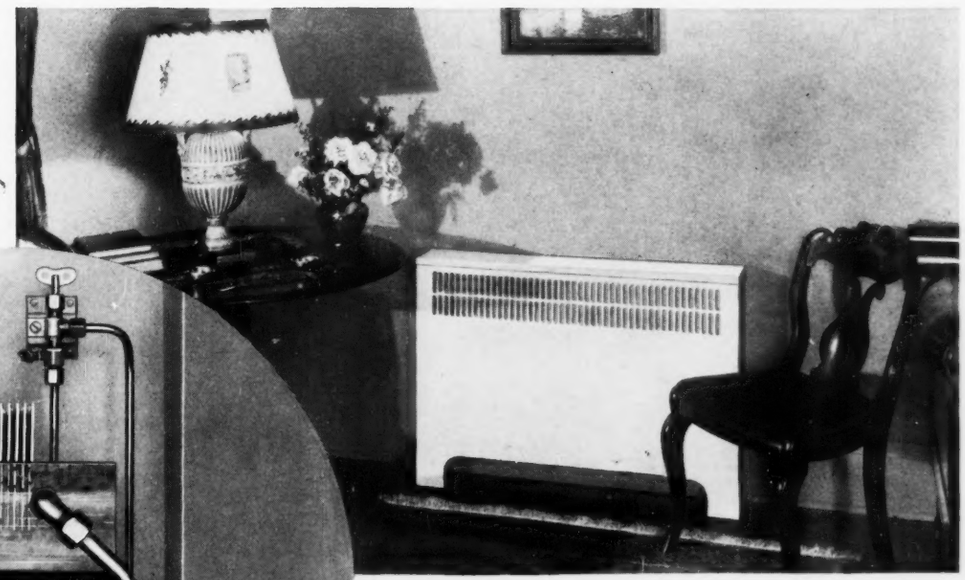
Announcing . . .

A NEW HUMIDIFIER

BY TRANE

The inside view of the Trane Humidifier shows the simplicity of construction. Water-absorbing fins transmit water from the tank to a position in the path of the heated air—humidified heat passes out of the grilles at the top. The easily accessible valve controls the supply of water to the tank and can be adjusted to meet humidification requirements.





Standard Humidifiers are attractively finished; colors available—gray, ivory, brown and tan, all giving two-tone effect, or gray primer coat only.

12 IMPORTANT ADVANTAGES

1. Low first cost.
2. Easy to install.
3. Simplicity of operation—no adjustments required.
4. Noiseless in operation.
5. Cleanliness. Removes dust from the air.
6. Moistens air to prevent colds and other winter ailments.
7. Low maintenance cost.
8. No float valves.
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10. Eliminates static discharges caused by dry rugs.
11. Rugs, wall paper and furniture last longer — no drying out.
12. Can be concealed in the wall or new installations. The humidifier assembly can be attached to practically any previous Trane Convection Heater installation.

Easily installed in any home or office

THERE is no doubt that the public has become "*humidity conscious*" in the past few years. Many makeshift devices have been offered to meet this widespread demand for properly humidified air. But most of the devices have either been wholly inadequate, too expensive, or too difficult to install. In presenting this new humidifier, Trane has overcome all these objections and has thereby made it *practicable* for any home or office heated by steam or hot water to enjoy properly humidified air.

The Trane Convection Humidifier is available in two sizes—one for installations of 15,000 cubic feet, which humidifies the air with from 7 to 10 gallons of water daily; and one for larger installations, which humidifies the air with 15 to 20 gallons daily. Humidity is by air absorption of water only. There are no sprays or jets to induce more vapor into the room than the air can contain.

Write for prices and complete details and be prepared to offer your clients the very latest in humidifying equipment. The Trane Company, Dept. 12, 302 Cameron Avenue, La Crosse, Wisconsin.

TRANE

Building Public Preference for

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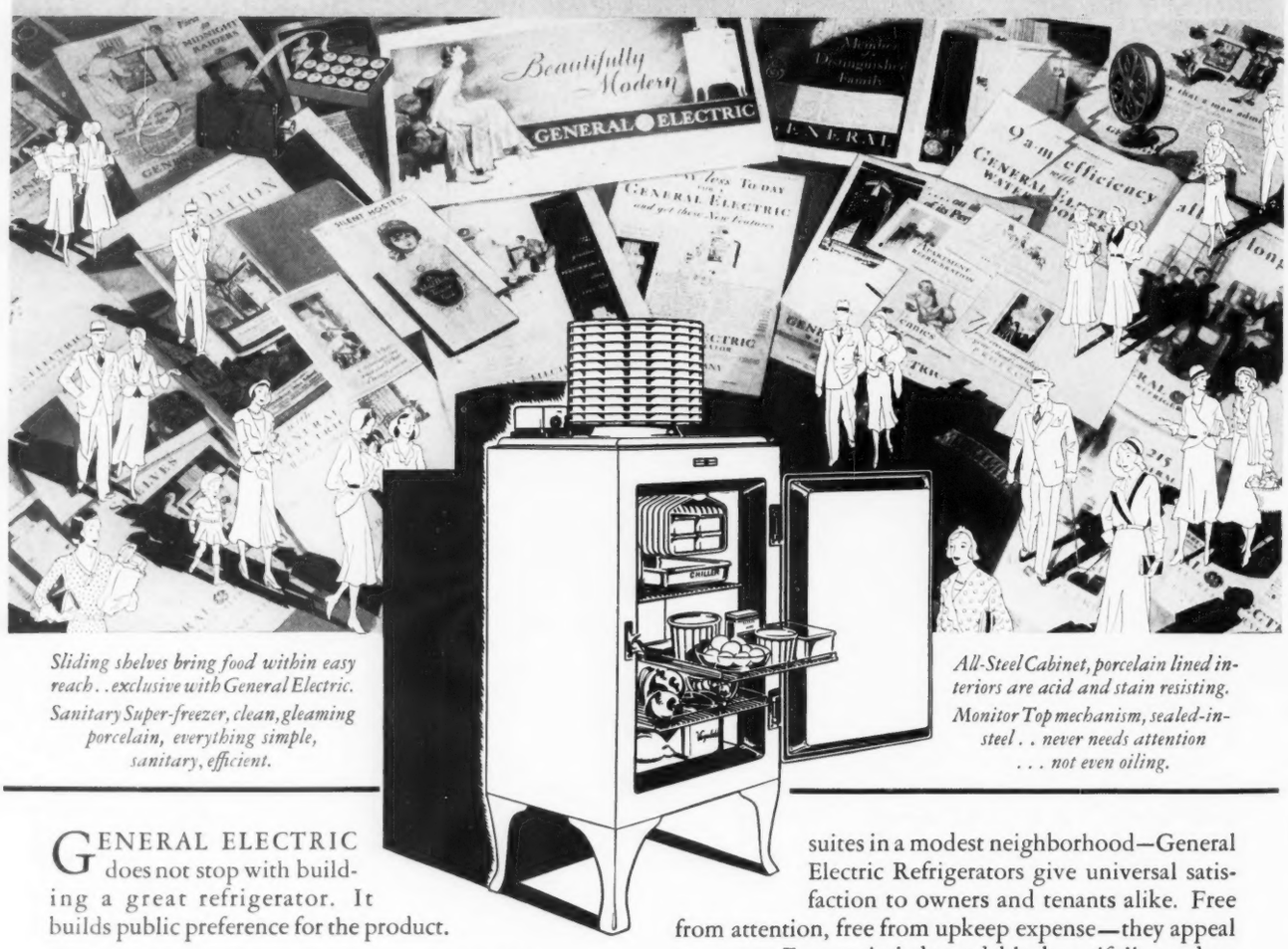
REFRIGERATORS



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Sanitary Super-freezer, clean, gleaming porcelain, everything simple, sanitary, efficient.

All-Steel Cabinet, porcelain lined interiors are acid and stain resisting.
Monitor Top mechanism, sealed-in-steel . . never needs attention . . . not even oiling.

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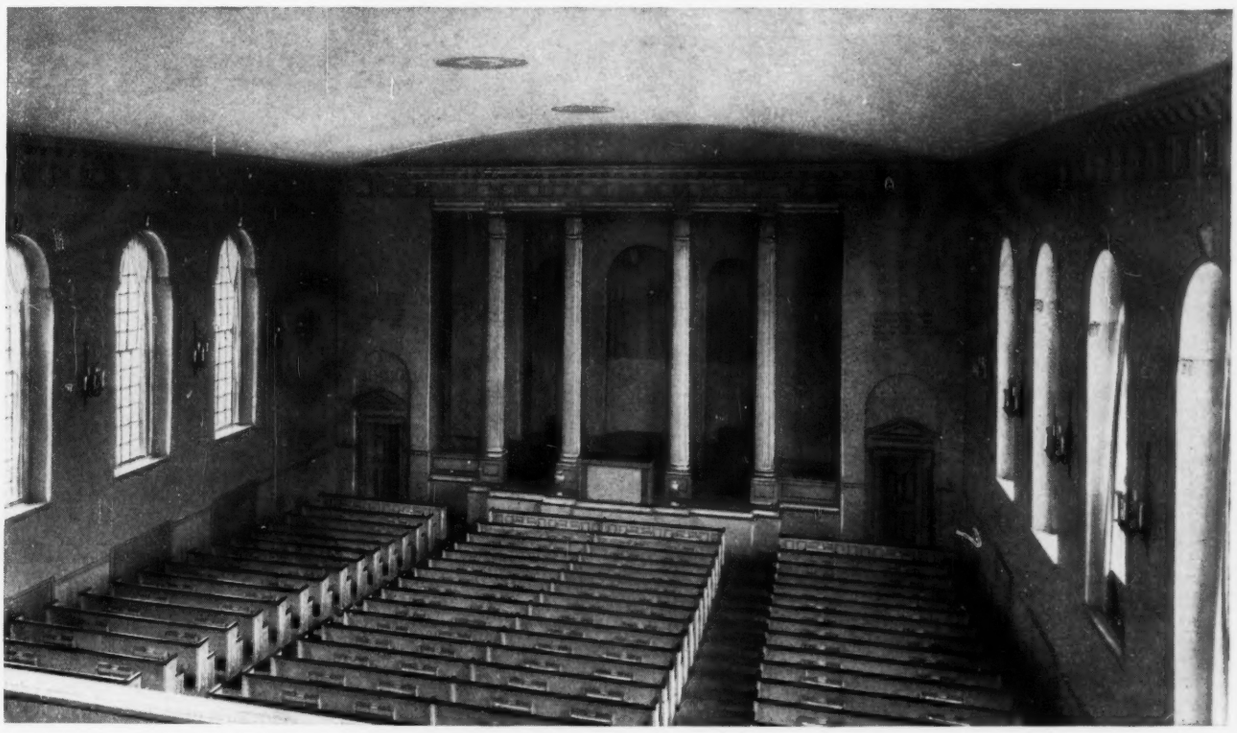
Through magazine and newspaper advertising, radio, billboards, direct mail—in a hundred and one ways—General Electric carries on a consistent and an intensive promotional campaign to acquaint tenants with the service a General Electric Refrigerator affords.

The result is that today there is a decided preference on the part of apartment tenants, as well as home owners, for the refrigerator with the famous current-saving Monitor Top—distinctive symbol of flawless refrigeration. Whether it's a large apartment of spacious rooms in an exclusive district or a small structure of efficiency suites in a modest neighborhood—General Electric Refrigerators give universal satisfaction to owners and tenants alike. Free from attention, free from upkeep expense—they appeal to owners. Economical, dependable, beautifully modern—they appeal to tenants. Portable—they fit in with modern built-in groupings. Individual—they give tenants control of their own refrigeration. Their unparallelled performance in more than a million kitchens has placed them on the list of preferred equipment of tenants, owners, builders and architects.

A complete plan service is available. Address General Electric Company, Electric Refrigeration Department, Section CP 12, Hanna Building, 1400 Euclid Avenue, Cleveland, Ohio.

DOMESTIC, APARTMENT HOUSE AND COMMERCIAL REFRIGERATORS—ELECTRIC WATER COOLERS



Sabinite Acoustical Plaster on ceiling, First Church of Christ, Scientist, Montclair, N. J. Faulkner & Wands, Architects.

Now—Perfect acoustics at low cost

with this new Sabinite Plaster

Improvements bring new advantages of interest to every Architect

WHEREVER perfect hearing conditions are desirable . . . in auditoriums, theatres, churches. . . architects find Sabinite, USG Acoustical Plaster, the low cost acoustical treatment. Now improvements in the new product called "Sabinite A" make it more economical, more effective than ever.

The sound-absorbing efficiency of the new Sabinite has been increased. Its covering capacity has been further extended and its working qualities greatly improved.

Greater latitude is now permitted in the treatment of the finish coat of Sabinite. It is equally efficient when applied in a "trowel," "floated" or "broomed" finish. Sabinite is supplied in white and four standard colors—ecru, ivory, cream and buff. Other colors are prepared as desired.

Sabinite controls reverberation through direct absorption in any type of audience room where a plaster finish is suitable. Or it may be used in business quarters of all kinds, restaurants, hospitals, schools, etc., to reduce disturbing noises. It is fireproof, durable, and completely sanitary.

Plastering contractors apply Sabinite during construction of the building. To forestall the possibility of misapplication, a USG Service Man is supplied to supervise every Sabinite job. For further information please write for the new booklet pictured above or for booklet describing the complete USG Sound Control Service. United States Gypsum Company, Dept. 2812, 300 W. Adams St., Chicago. In Canada: Dominion Gypsum Co., Ltd., Toronto, Ontario.

SEND FOR FREE BOOKLET

Without charge we will send you this booklet describing the advantages of Sabinite Acoustical Plaster. It includes illustrations and data on many of the successful Sabinite installations.

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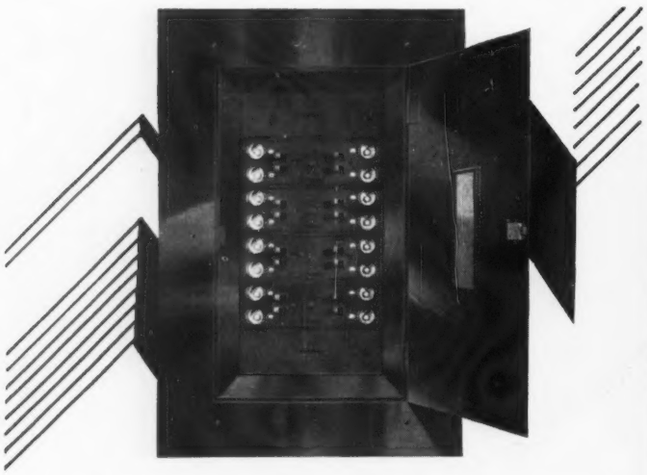
THE USG ACOUSTICAL PLASTER



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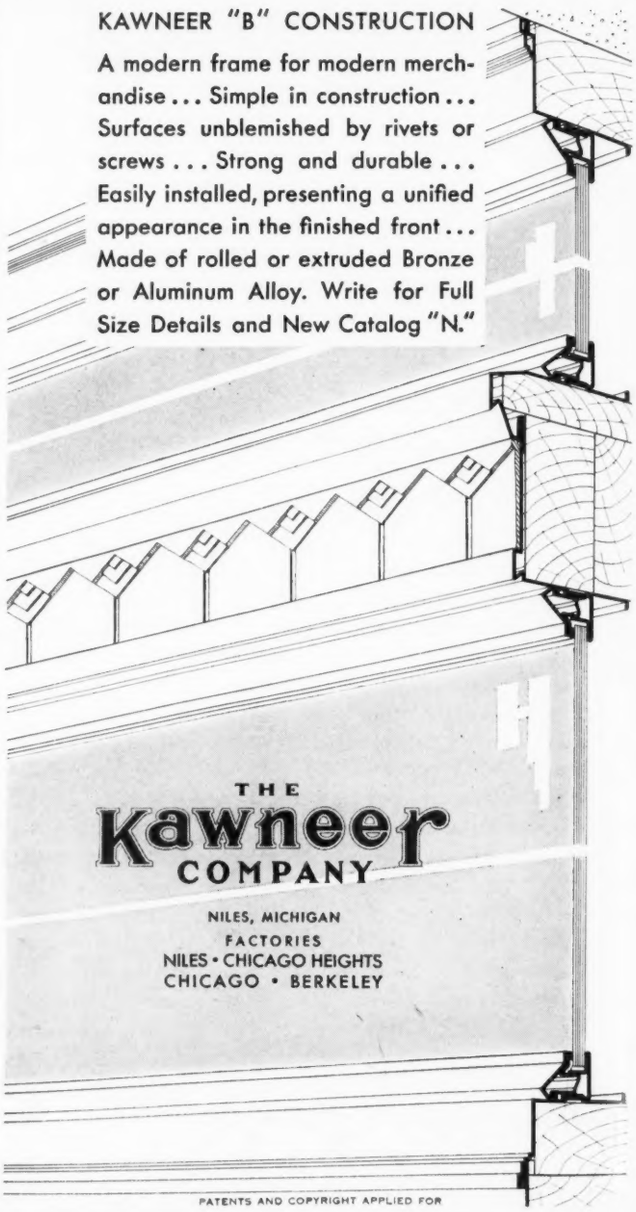

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Vertical Section Through Windows showing operation.

Safe Operation of Bottom Hung Clerestory Sash

The large triple sash above the side windows of this tennis court are mechanically operated from the floor. Lord & Burnham Screw Thread Operators not only control the bottom hung sash for ventilation, but hold them from falling in, with the attendant risk of broken glass.

Tennis Courts, estate of Mrs. H. E. Talbott, Dayton, Ohio. Peabody, Wilson & Brown, Architects. Lord & Burnham Sash Operators.

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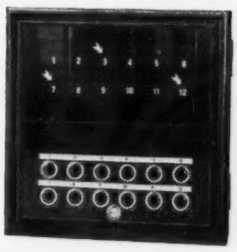
SIMPLICITY in installation, lower operating cost, perfect service and the usual Edwards guarantee recommended the 100% installation of Edwards signaling apparatus in the William Sloan House, New York, as in hundreds of other similar institutions all over the country.

Edwards Return Call Systems operate between central office and individual rooms. Allow acknowledgment of a call and leave an indication that a call has been made.

There is an Edwards signaling system for every building need.



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CITY HALLS

WHOSE DOORS SWING ON

STANLEY BALL BEARING BUTTS

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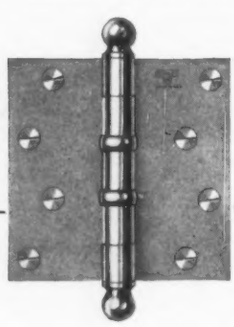
Architects: John G. Austin, Albert C. Martin, John Parkinson, Associates

BUFFALO CITY HALL
Architects: Dietel and Wade. *Associate Architect:* Sullivan W. Jones

The distinctiveness of recent American City Halls is supported by the beauty and efficiency of modern materials and equipment.

The important requirement of smooth, trouble-free operation of the multitude of doors in these outstanding City Halls has been effectively met by the installation of Stanley Ball Bearing Butts.



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New Britain, Conn.

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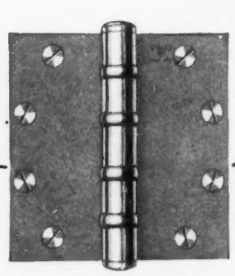

STANLEY BALL-BEARING BUTTS

PREVENT FADED COLORS

FADING of mortar colors is caused by (1) the bleaching action of lime, or (2) the washing out of the pigment by rain. . . When Brixment is used for mortar, colors do not fade, because (1) there is no lime in the mix, and (2) the waterproofing in Brixment keeps the water out of the mortar. . . Brixment is therefore recommended by manufacturers of mortar colors for use with their products.

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BRIXMENT

A Cement for Masonry and Stucco

Library panelled in American Walnut in the residence of Mr. Eli Lilly, Indianapolis. Architect: Robert Frost Daggett, Indianapolis. Woodworker: Aetna Cabinet Co., Indianapolis.

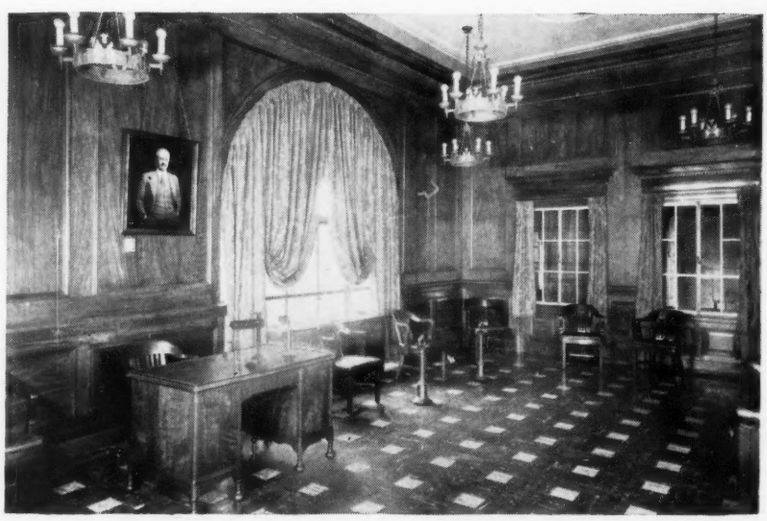
BECAUSE IT GOES SO WELL WITH WALNUT

AFTER the architect, the decorator, after him the occupant. Each adds to the room. Finished, used and lived in, the room is an ensemble of walls and rugs and furniture and hangings.

Recognizing this, architects do not stop with endowing those walls with a cold and isolated beauty, but treat them in such a way as to harmonize with the things which they surround. Quite naturally, walnut woodwork and panelling rarely fails to come in for consideration.

Walnut in its color, in the pattern of its figure, in the way in which it finishes, in its decorative value—possesses those positive but unobtrusive virtues which make it harmonize so admirably with rugs, draperies and furnishings.

Modern methods of cutting walnut veneers provide a constantly widening range of figures with which the architect can achieve a complete harmony of the walls with the most distinctive furnishings.



Directors' Room in the Boulevard Branch of the Hudson City Savings Bank, Jersey City. Architect: William Neuman & Sons, Jersey City. Woodworker: Jacob Froehlich Cabinet Works, Inc., New York City.

The selection of veneer types and of finishes for specific rooms is an activity in which we will be glad to co-operate. A letter will bring prompt information —or the personal consultation of our technician, should you so desire.

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AMERICAN WALNUT

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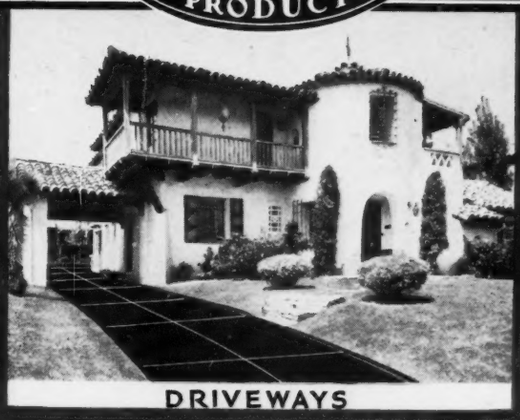
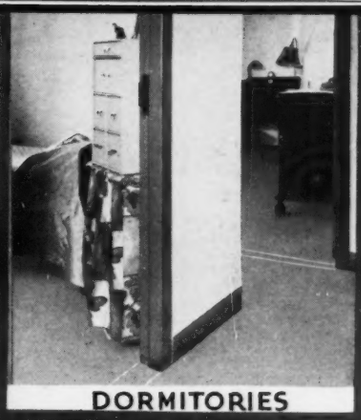

DRIVEWAYS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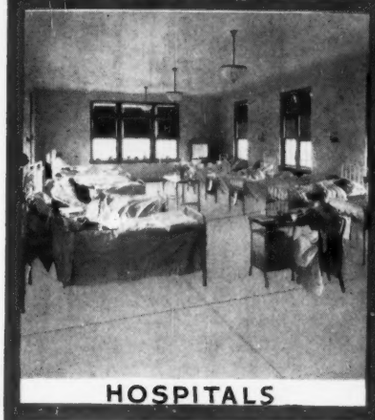
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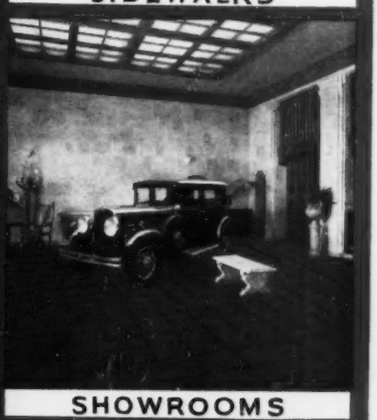
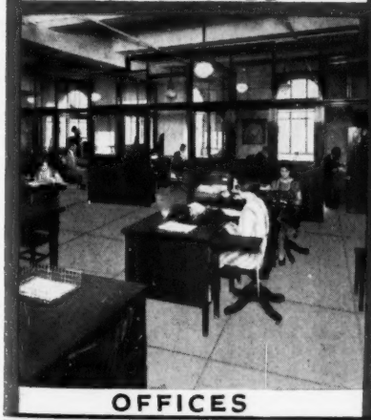

SHOWROOMS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Harborview Hospital, Seattle, Washington, is one of the largest and finest hospitals on the Pacific Coast. Architects: Thomas, Grainger & Thomas. Medical Consultant: William Henry Walsh, M. D., Chicago. General Contractor: Western Construction Co.

FOOD SERVICE EQUIPMENT *will "look better longer"* IN NEW HARBORVIEW HOSPITAL, SEATTLE

Look better and *last longer* because it's made of lustrous, wear-resisting Monel Metal! The nurses' cafeteria and diet kitchens throughout this splendid 1000-bed hospital are completely Monel Metal equipped.

These units will remain bright and sanitary... will always be easy to clean and keep clean, because Monel Metal is rust-proof and highly resistant to corrosion. Its ready cleanability makes Monel Metal the ideal material for food service installations where cleaning costs are an important factor in maintenance.

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Write for new booklet which describes in detail the plan and operation of food service, laundry, clinical and surgical departments of another Monel Metal job... Christ Hospital, Cincinnati, Ohio.

A HIGH NICKEL ALLOY

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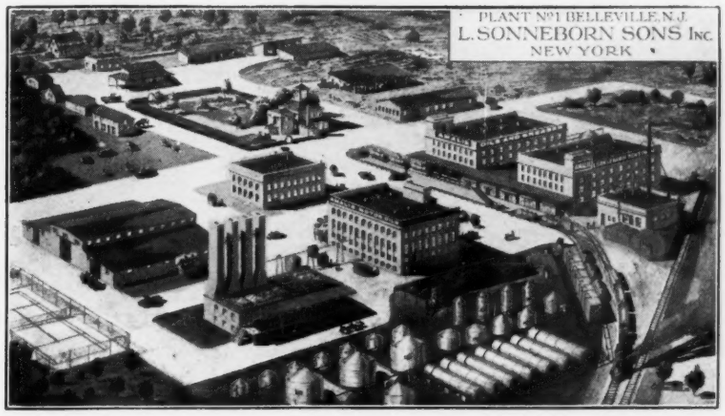

A Complete Line of Products For Preserving and Waterproofing Foundations, Walls and Floors

IF YOU, AS AN ARCHITECT, tried to investigate every product which bids for your approval, you wouldn't have time for anything else. Sonneborn does not expect you to keep our products all in mind. But—

Remember that if you want a product for preserving any kind of walls, floors or foundations, Sonneborn has it.

Remember that Sonneborn guarantees the job . . . stands behind it . . . makes good.

Remember that Sonneborn offers a Consulting Service which expertly helps you to solve any problem of wearproofing or waterproofing, inside or out.

Our many years of laboratory research . . . our experience in treating thousands of office structures, institutions, factories and buildings of every type—many of the most famous in the world . . . our widely varied lines and far-reaching service facilities . . . all this, we believe, is assurance that your specifications will be met to the letter.

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Liquid chemical concrete floor hardener welds loose particles into a close-grained mass, granite-hard.

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For finishing, preserving and wearproofing wood floors. Penetrates wood with life-giving gums and oils.

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RCA Victor

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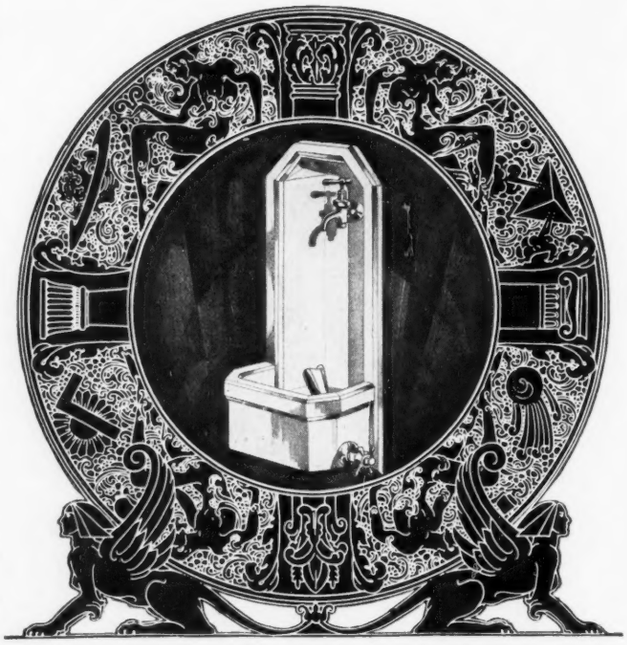


Here Is a True Expression *of* Leadership

ILLUSTRATED is the Century Semi-Recessed Drinking Fountain. Created by Century Artists over a year ago, it has won a Nation wide acceptance. Exquisitely proportioned, it harmonizes well with wall masses. Styled in the modern manner, it adds a striking bit of detail. Its unique design is particularly adapted to corridors, and provides free passage way even in the narrowest halls. It serves its purpose well.

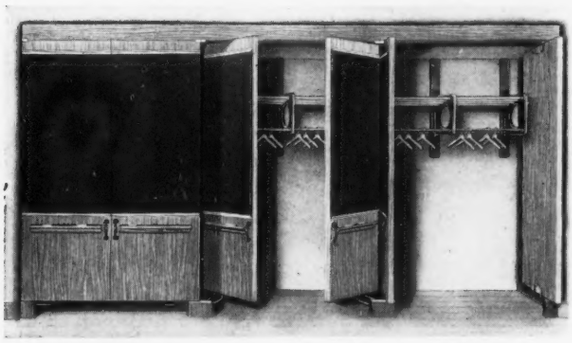
Equipped with the famous Century Automatic Bubbler Head, it is undoubtedly the most efficient in all America. Invented nearly three years ago, this Automatic Bubbler Head has created a new standard of sanitation. Connected direct to line pressure, it automatically maintains a normal, wholesome drinking stream. Volume controls and other hand operated devices are unnecessary. It is truly Automatic! Each turn of the handle produces an amazingly smooth, convenient drinking stream.

Century Engineers have created both a new standard of beauty and efficiency. Century Fountains have scored a national success. This is a true expression of leadership.

CENTURY BRASS WORKS, *Inc.*

900 North Illinois St. Belleville, Illinois

Century SANITARY DRINKING Fountains



EVANS "Vanishing Door" WARDROBE (class B-B) without jambs or trim.

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See SWEET'S for 1932, Vol. C 3818

THIS wardrobe is made for plaster ends, backs and ceilings. No jambs nor trim required; only doors, fillet, hinges and interior of racks and garment hangers completing the installation. The hinges used are of heavier construction than any previous manufacture and are unconditionally guaranteed to last the life of the building. There are no noisy tracks nor rollers to stick or bind, nor intricate mechanism to get out of order.

"Vanishing Door" wardrobes are furnished complete in the knockdown. All woodwork is cut to size and only needs nailing in place. The hinges are easier to put on than common butt hinges. The cost of installation is small.

Catalog "K," with specifications and price list, fully illustrates many types of school wardrobes. Write for a copy.

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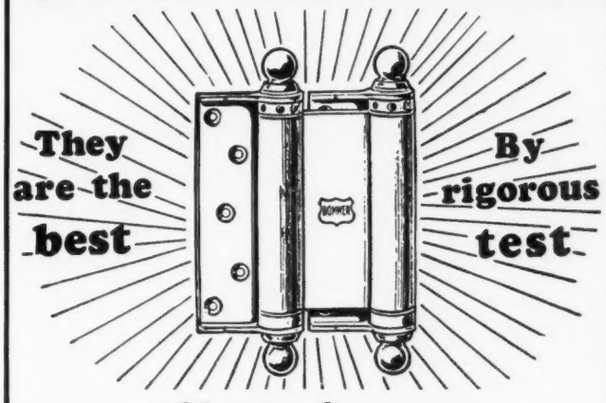
50 years on a DOOR good for fifty years more



Notabene

The solid bronze Bommer Spring Hinges swinging the big front doors of the old Bank of Manhattan at 40 Wall St., New York, since 1880 were still in excellent condition when that building was demolished in 1929 to be replaced by the new Bank of Manhattan skyscraper of 73 stories which is also equipped with Bommer Spring Hinges—truly an astounding record.

These Historic Hinges can be seen at our factory

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Millions and Millions of People are Pushing Bommer Spring Hinges when opening doors

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EXTERIOR LIGHTING FIXTURES

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A variety of two hundred stock designs for exterior lighting fixtures is shown in Volume D of Sweet's Architectural Catalogues, 1932 edition, pages 5035 to 5045. Each design displays the high standard of metal craftsmanship maintained by Smyser-Royer Company for over 90 years.

If an original design is specified, Smyser-Royer Company craftsmen will carefully interpret specifications, reproducing every detail of the design in cast iron, bronze or aluminum.

We will gladly send you our catalogue showing exterior lamps, lanterns and brackets for every period and purpose.

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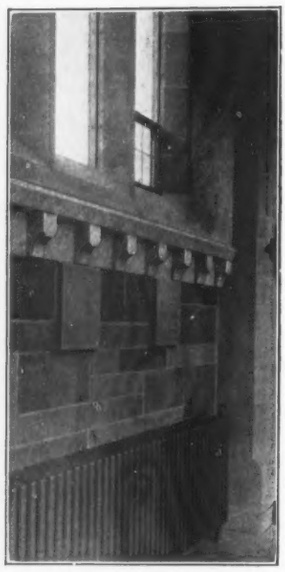

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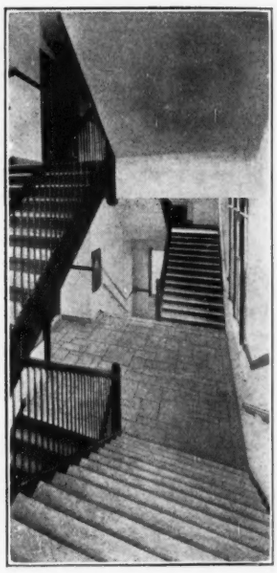
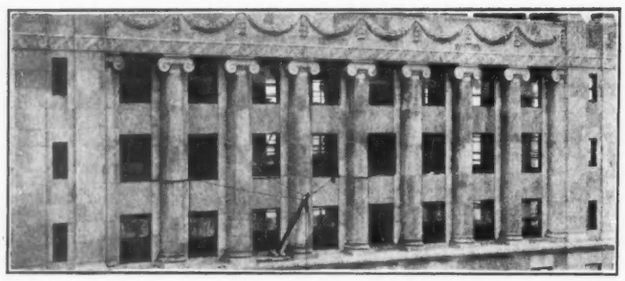
The unique qualities *of* SOAPSTONE make it an interesting material with which to work

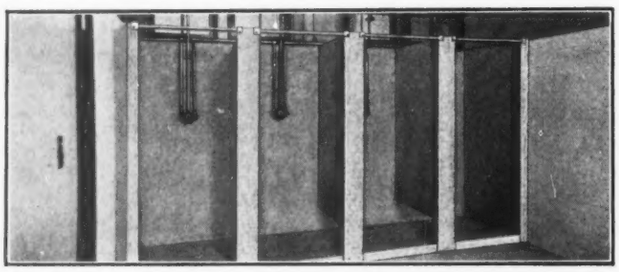


TREADS

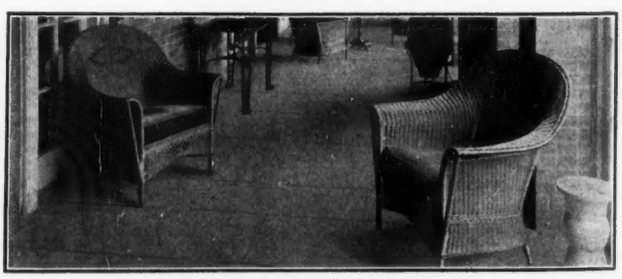


SPANDRELS

SILLS and STOOLS



SHOWER STALLS



FLOORING

The Tennessee marble quarries and mills of the Ross and Republic Marble Company have been acquired by the Virginia Alberene Corporation, and the business will be continued as the Ross-Republic Marble Corporation. Alberene Stone Company continues to act as Sole Selling Agent.

WE solicit inquiries for samples from architects who are not familiar with the various textures and finishes of soapstone, because we believe that this natural non-stratified material has possibilities as an architectural medium that will not be known until its qualities are familiar to all architects.

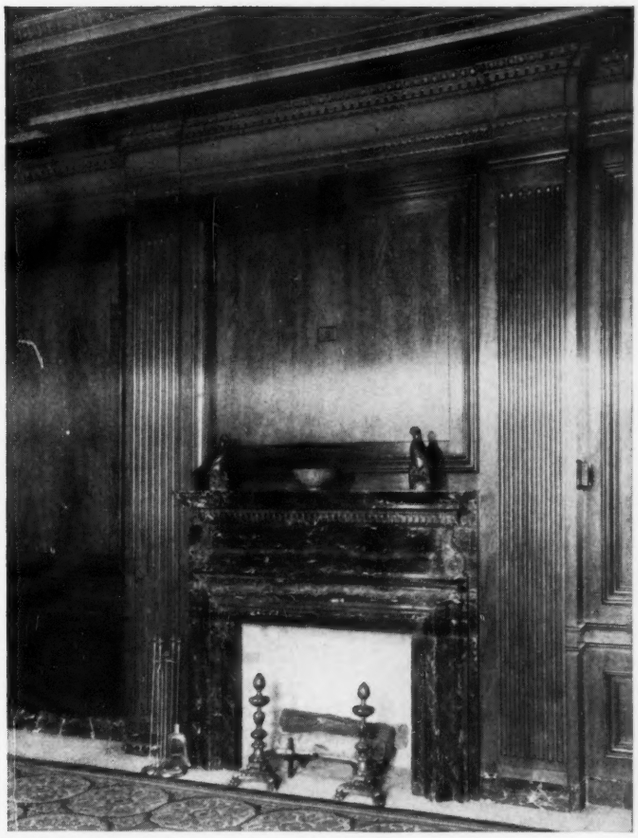
With knowledge of properties, colors and textures, we are confident that creative minds will see artistic and economic uses as yet unknown.

ALBERENE STONE COMPANY, 153 W. 23rd Street, New York. Branches in Principal Cities. Quarries and Mills at Schuyler, Virginia.

ALBERENE STONE

THE VIRGINIA SOAPSTONE OF DIVERSIFIED UTILITY

Complete data and plates in full color showing Alberene Stone in conjunction with marbles and other building stones make the brochure "Architectural Alberene" of interest.



Fireplace detail—The Ohio Bell Telephone Building, Cleveland, Ohio, wired in Youngstown Buckeye Conduit by Hatzel & Buehler, Electrical Contractors—Architects Hubbel & Benes

INTERIOR *Beauty...* INBUILT *Endurance*

IN THE Ohio Bell Telephone Building, Cleveland, Ohio, the beauty of architectural details is matched by the permanence which has been built into that unseen but important element, the electrical systems, by the installation of Youngstown Buckeye Conduit.

Architects the country over, recognizing the outstanding features of Youngstown Buckeye Conduit, Youngstown Steel Pipe and Youngstown Sheets, specify accordingly.

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THE YOUNGSTOWN SHEET AND TUBE CO.

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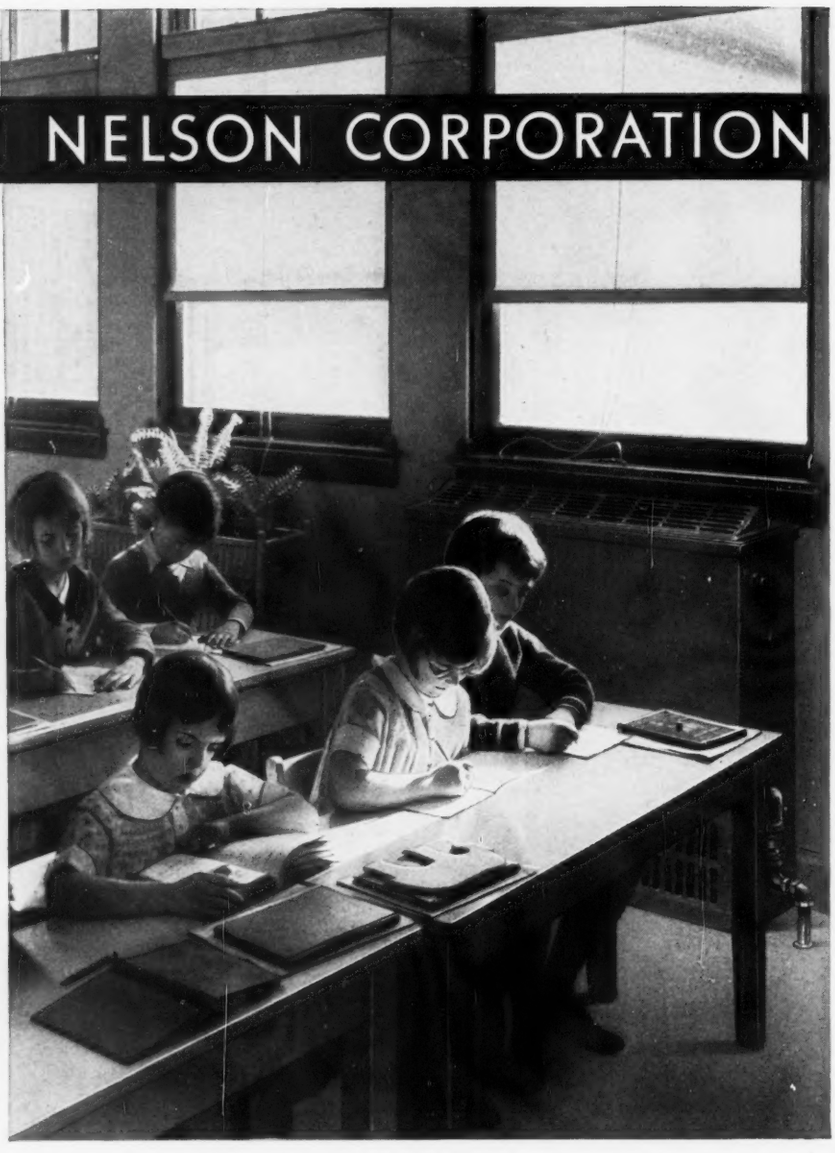

Engineers, architects and school authorities see in the Her-Nel-Co System of Ventilation the practical solution of a most harassing problem.

In this system an invigorating, healthful atmosphere is created and maintained in the school room—without the expensive expedient of preheating a continuous supply of outdoor air.

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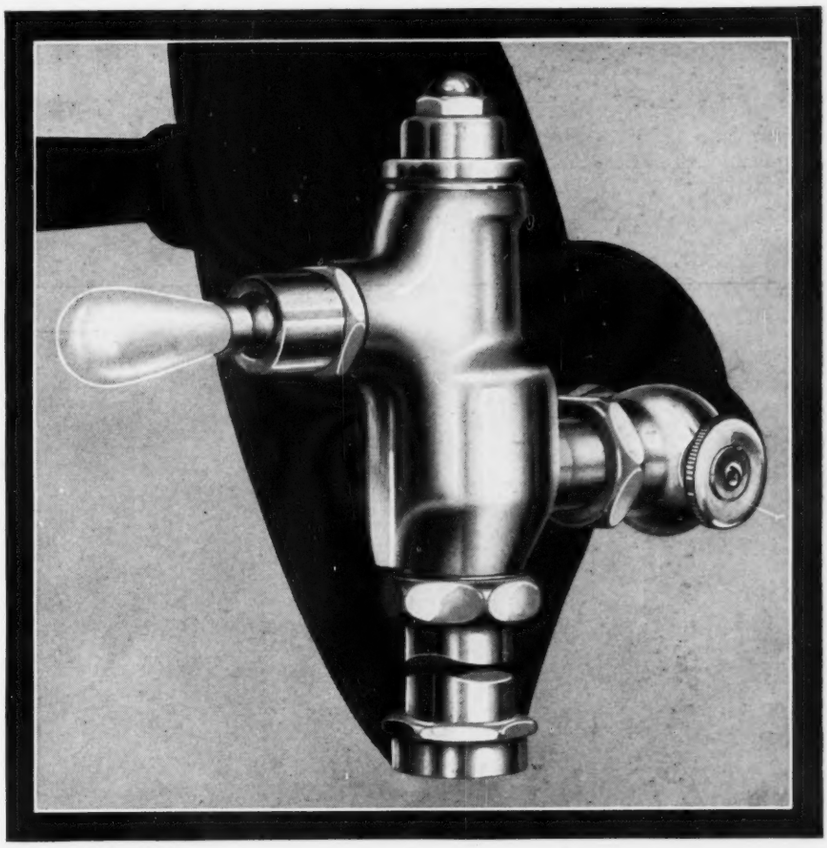
You would think *you had designed it yourself*



IF YOU could see the list of recent installations of the Scovill Flush Valve — office buildings, apartment hotels, residences, public schools, amusement places, to mention a few — you would note the growing Plumber's preference for this valve. Then if you studied the valve in its every detail you would feel as though you had designed it yourself — for the Scovill Valve has every practical thing that the plumber desires.

Fine eye appeal — all exposed parts highly finished nickel or chromium plate. . . . Simple installation — requires minimum of plumber's time. . . . Adjustment from outside without shutting off water supply. . . . Assured positive action under every reasonable pressure — opens *with* and closes *against* flow and pressure. . . . Self-lubricating plunger. . . . Self-cleaning by-pass. . . . Designed for simplicity. . . . All materials laboratory tested. . . . Precision made.

Scovill Flush Valves are made in a wide variety of both exposed and concealed models. Get acquainted with them for your unending satisfaction. Write for details. Address:

SCOVILL MANUFACTURING COMPANY
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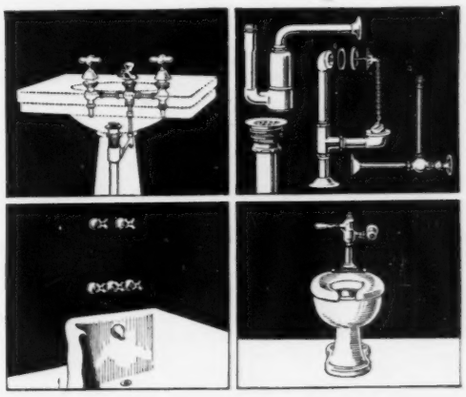
A COMPLETE LINE . . . . .



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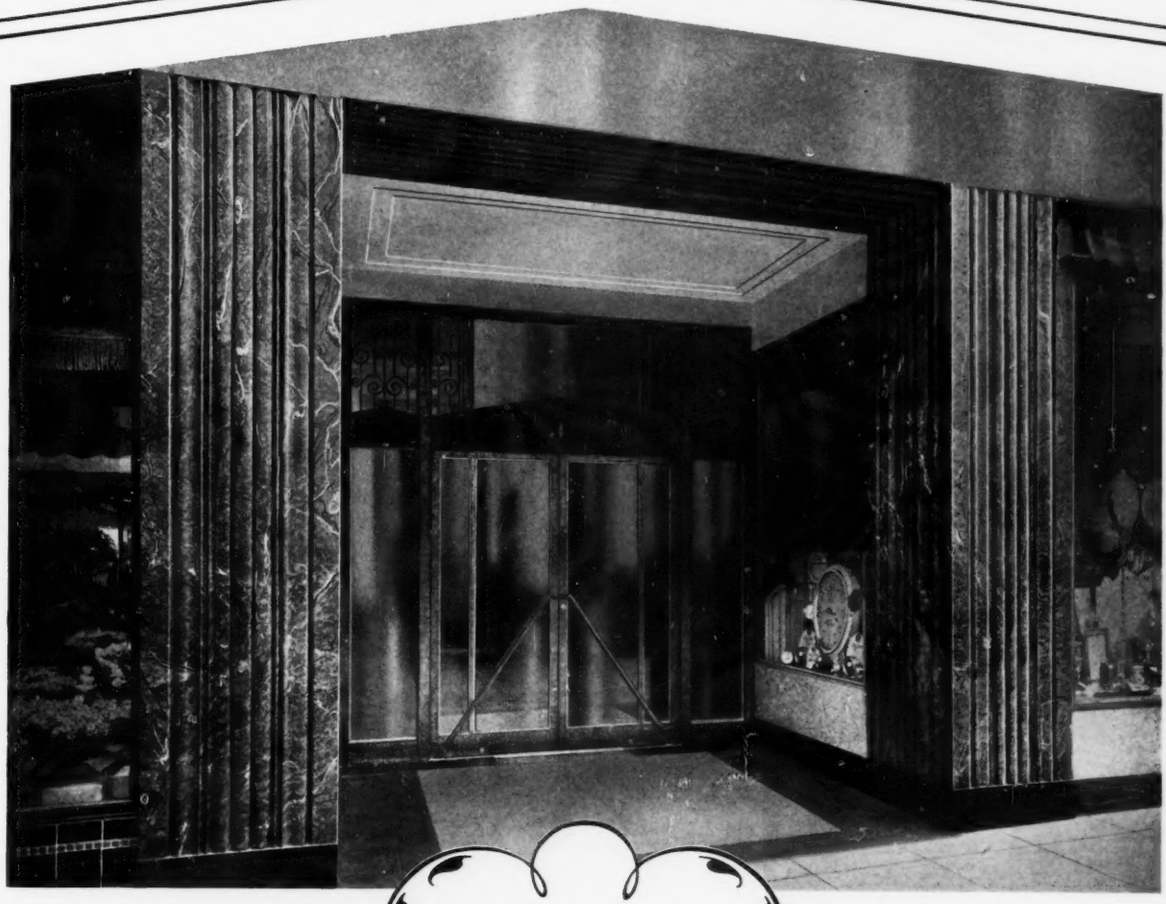

Plate Number Ten

The Modernistic Series

IN no field has the modern trend been more in evidence than in the building of store fronts and entrances. This is particularly true in European cities. Most radical of all, perhaps, are the newer shops of Paris. Except in rare cases, the designers of this country have been far more conservative.

Already in this series we have shown several store fronts of the conservatively modernistic type. Of similar kind is this Crary Building Entrance in Seattle, Wash. Here the color effects were secured through the use of Vermont Verde Antique and Belgian marbles. The work was finished and installed by The Robinson Tile & Marble Co., of Seattle. The architect was R. C. Reamer.

VERMONT MARBLE COMPANY—PROCTOR, VERMONT

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Millersburg, Ohio

Charles E. Firestone
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REPUBLIC'S PERFECTED STAINLESS STEEL

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Such a metal is ENDURO—strong, ductile, resistant to air, water and most acids. It will not corrode, erode, abrade or oxidize. It never changes in appearance because it is the same all the way through.

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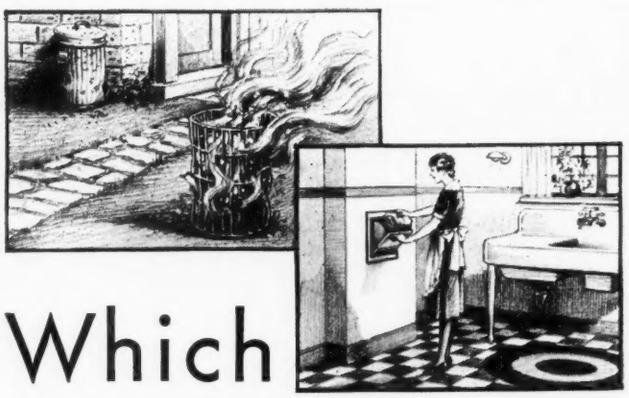
For Complete Information
Write Central Alloy Division
Massillon, Ohio

REPUBLIC STEEL
CORPORATION
GENERAL OFFICES YOUNGSTOWN, OHIO



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With GAS or OIL for HEATING —*what will you do with* WASTE and RUBBISH ?

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Architects specifications for the Parthenon unearthed

Copy of strange document found in ancient Greek ruins

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PRONOUNCED "GO-HIGH"

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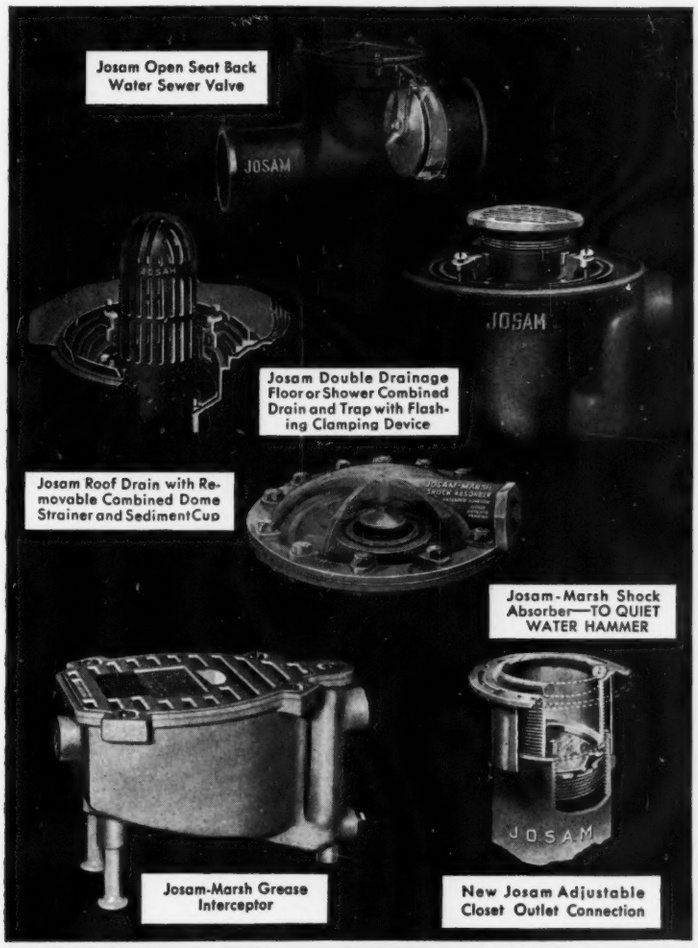
Plan the Job to Your Liking!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Josam Double Drainage Floor or Shower Combined Drain and Trap with Flashing Clamping Device
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● The peculiar necessities of a particular job are comprehended by the scope of Josam's sanitary engineering and manufacturing activities.

THE scope of Josam service removes certain limitations to proper planning. The Josam line of sanitary specialties (twenty-four in all) provides the means of more than adequately meeting such sanitary problems as are likely to develop even when the job is planned the way you want it.

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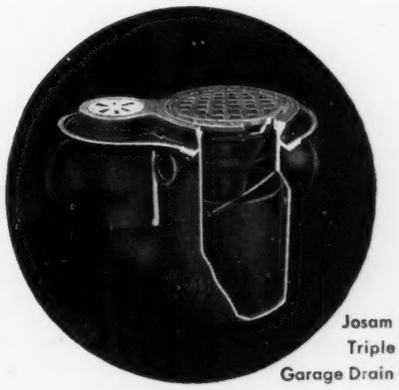
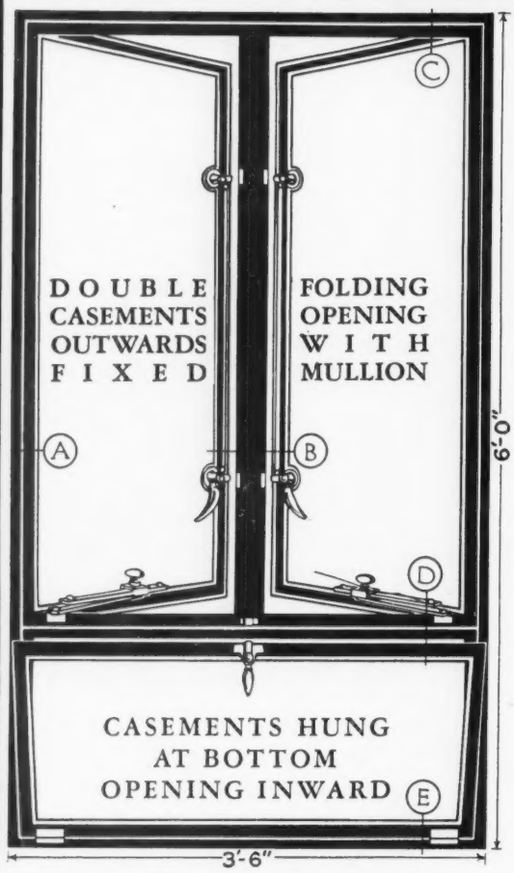


Josam Non-Clog Triple Drainage Garage Drain and Trap.

THERE ARE NO SUBSTITUTES FOR JOSAM PRODUCTS

INTERNATIONAL CASEMENTS



• ELEVATION •

The above is one of the 24 standard types.

FEATURES OF CONSTRUCTION

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All sight lines are equal.

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Casements and frames are solid welded and provide continuous double weathering contact. Loose or applied linings for weathering are not employed and the dangers which follow when linings are forced away by corrosion are avoided.

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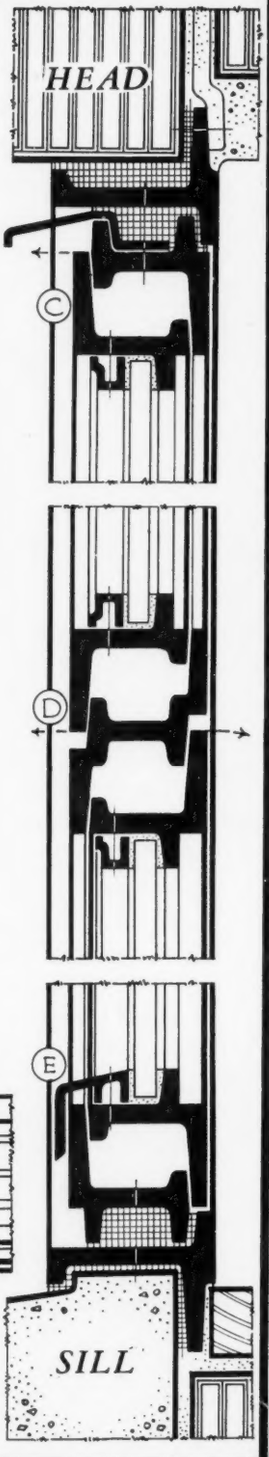
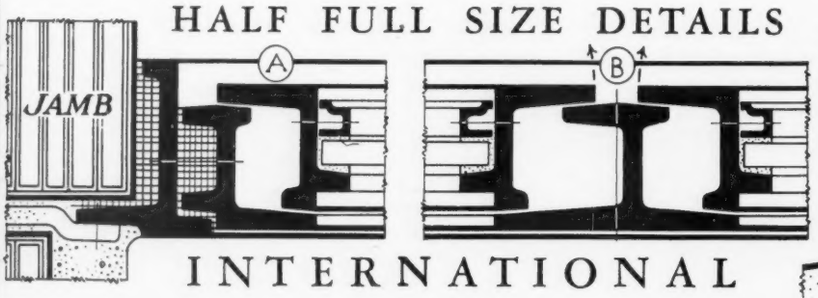


HALF FULL SIZE DETAILS



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ROBERT O. DERRICK, Architect, *Detroit*

ONCE, Americans were content with homes made pleasant to *look* at. Now they ask also for homes that are easy to *live* in. Every added convenience, every contribution to living comfort, increases their valuation of a house and raises their estimate of its architect.

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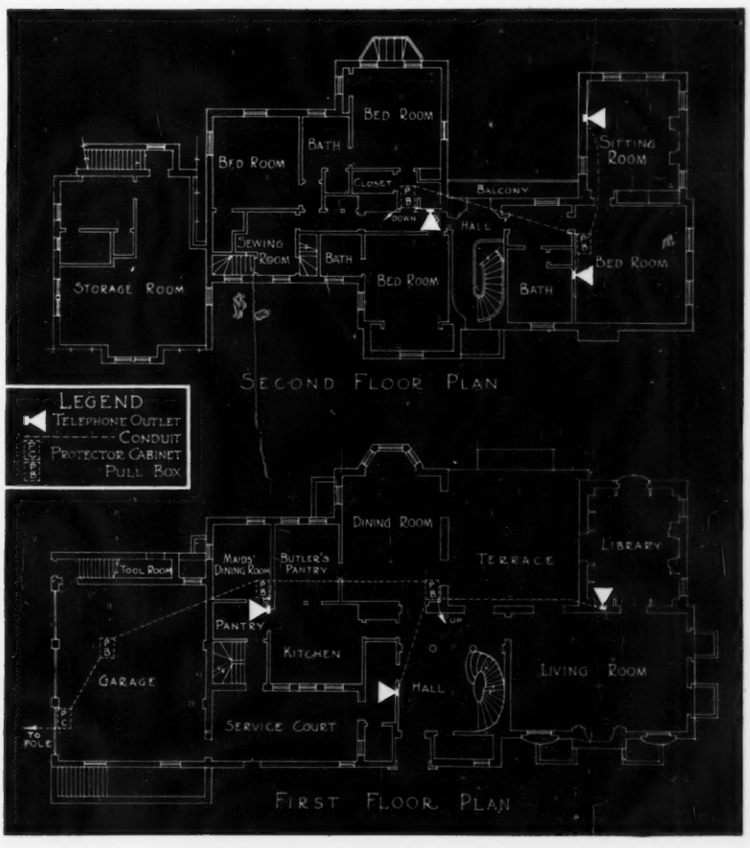
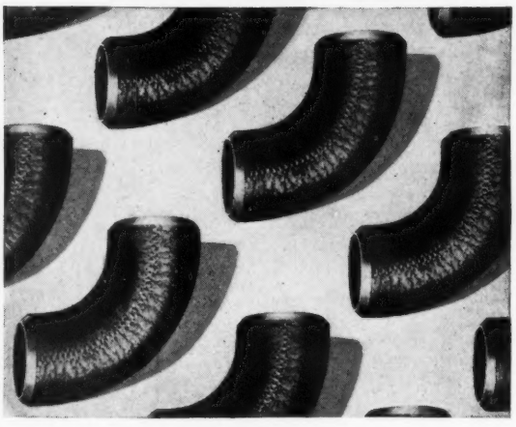
You can assure full and flexible telephone convenience to your clients by consulting the local telephone company. Their advice and assistance is given gladly, without charge. Just call the Business Office.



HOLD THOSE SPECIFICATIONS!



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Now you can make piping systems of other metals *better* by using welding ells of this superior material at critical points.

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These new fittings are made by the new patented process of the Midwest Piping & Supply Company, Inc., 1450 South Second Street, St. Louis Mo., from specially selected Reading *Puddled* iron skelp. You can get them in the sizes you need. They are identified by a special label and Reading knurl showing that they are made of genuine Reading *Puddled* Iron.

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Publications on Materials & Equipment

Of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS *by the firm issuing them. When writing for these items please mention* PENCIL POINTS.

The New Yale Concealed Door Closer.—Illustrated bulletin, just issued, describes in detail the construction, operation and installation of a new and improved type of concealed door closer suitable for both metal and wood doors and especially adaptable for corridor doors, interior partition doors, etc. The Yale & Towne Mfg. Co., Stamford, Conn.

Cornell In-Cel-Wood Structural Insulation Specification Manual.—A.I.A. File No. 37-a-1. New document presenting complete descriptive data and specifications covering this type of structural insulating material suitable for sheathing and roof boarding, plaster base, interior finish, floor insulation and insulation over wood, concrete, steel and similar roof decks. Installation details. 6 pp. 8½ x 11. Cornell Wood Products Co., 307 North Michigan Ave., Chicago, Ill.

The Barber-Colman Electric System of Temperature Control.—A.I.A. File No. 30-f-2. Catalog B2. Useful reference book for architects and heating engineers covering completely a new development in temperature control equipment suitable for use in conjunction with heating, ventilating and air conditioning systems. Included are detailed descriptions of each piece of apparatus and temperature control systems for various types of heating equipment. Dimension drawings. 46 pp. 8½ x 11. Barber-Colman Co., Rockford, Ill.

Published by the same firm, "The Barcol Over Door." A.I.A. File No. 17-a-2. Descriptive and specification data folder devoted to an improved overhead type of door for garages, service stations, factories, warehouses, etc. 4 pp. 8½ x 11.

International "Hopkins" Windows.—A.I.A. File No. 16-e-1. Publication No. 18, just issued, presents useful information for architects and specification writers on this type of window particularly suitable for hospitals, schools, court houses and other buildings. Specifications, window and hardware details, types and sizes. 12 pp. 8½ x 11. International Casement Co., Jamestown, N. Y.

Flush Valves by Scovill.—A.I.A. File No. 29-h-21. New brochure illustrating and describing the construction and operation of this type of flush valve. 8 pp. 8½ x 11. Scovill Manufacturing Co., Waterville, Conn.

Vitrolite Construction Details.—New catalog with many construction details, color chart and descriptive data on the subject of Vitrolite, a fused rock slab material for walls, ceilings and toilet partitions, also for interior and exterior construction and decoration. Outline specifications. 16 pp. 8½ x 11. The Vitrolite Co., 120 South LaSalle St., Chicago, Ill.

Published by the same firm, "The Transformation Book." New publication, illustrated in colors, deals with the subject of modernizing old bathrooms and kitchens with this kind of sanitary wall and ceiling material. 12 pp. 8½ x 11.

Chestnut as a Core Wood.—A.I.A. File No. 19-a-21. Brochure No. 4 discusses the physical and mechanical properties and other characteristics of chestnut as a base upon which to glue face veneer. 4 pp. 8½ x 11. The Appalachian Hardwood Club, Trade Extension Dept., Southern Railway Bldg., Cincinnati, O.

Grilles of New Original Designs.—A.I.A. File No. 30-e. New folder illustrating grille designs of modern motif created especially for production in white metals. The Harrington & King Perforating Co., 5655 Fillmore St., Chicago, Ill.

Tiles by National.—Handsome brochure, just issued, covers a wide range of glazed and unglazed wall and floor tiles, decorative strips, inserts and panels. Included are color chart and series of wall and floor designs reproduced in full colors. 16 pp. 8½ x 11. The National Tile Co., Anderson, Ind.

Instructions for Using Calibron Perspective Paper Type I.—New folder, printed in colors, superseding previous issue, goes more carefully into the details of the perspective principles on which Calibron paper is based and explains more fully the method of using the paper. Calibron Products, Inc., 380 Main St., East Orange, N. J.

Diamond H Door Bolt Control Switches.—A.I.A. File No. 31-c-7, 31-i. Bulletin No. 14A presents complete descriptive, installation and specification data covering this type of switch especially adaptable for hotels, theatres and other uses. Conduit layouts, wiring diagrams, etc. 12 pp. 8½ x 11. Hart Manufacturing Co., Hartford, Conn.

The Path to Permanence.—A.I.A. File No. 12-a-31. Second edition of this useful reference book for architects and engineers giving the latest information on the subject of Toncan copper molybdenum iron sheets. It also illustrates various types of installations of this rust and corrosion-resisting sheet metal as well as examples of performance under unusually severe conditions. 64 pp. 8½ x 11. Republic Steel Corporation, Mansillon, Ohio.

Jackson's Easy-Clean Bronze or Aluminum Casement Windows.—Descriptive bulletin with details of construction and standard shapes and sizes covering this type of residence casement window. 8 pp. 8½ x 11. Wm. H. Jackson Co., 335 Carroll St., Brooklyn, N. Y.

The New Bradley Shower and Dressing Room Fixture.—Descriptive and specification data sheet covering this new unit which provides five showers and ten dressing rooms for use in schools, clubs, gymnasiums, institutions, industries, etc. 8½ x 11. Bradley Wash-fountain Co., 2203 West Michigan St., Milwaukee, Wis.

Sturtevant Design 4 Silentvane Fan.—Bulletin No. 381 presents descriptive and engineering data covering the new design 4 silentvane fan. Performance charts, specifications, dimension drawings. 20 pp. 8½ x 11. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

Hoyt Hardlead Architectural and Ornamental Leadwork.—A.I.A. File No. 12-c-51. Attractive brochure illustrating a wide range of architectural and ornamental applications of Hoyt Hardlead leadwork. Included are specifications and many designs of rain-water pipe-heads, pipe, pipe bands, gutters and fittings. 78 pp. 7½ x 10¾. National Lead Co., Hoyt Hardlead Division, 111 Broadway, New York, N. Y.

Minneapolis-Honeywell Electric Clock Thermostat.—Descriptive and specification data sheet covering this new line of thermostats equipped with self-starting synchronous electric clocks. 8½ x 11. Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., So., Minneapolis, Minn.

Josam Saw Tooth Roof Drain.—A.I.A. File No. 29-c-3. Folder with blue print details and descriptive data covering this type of saw tooth roof drain which is designated to fit a definitely required slope of roof. 4 pp. 8½ x 11. Josam Manufacturing Co., 4900 Euclid Bldg., Cleveland, Ohio.

Master Builders Floor Hardeners and Colorers.—A.I.A. File No. 3-b-2. Architects' looseleaf filing folder No. 1 containing specifications and other useful data for concrete floor hardening, coloring, dustproofing, waterproofing, bonding and curing. 8½ x 11. The Master Builders Co., 7016 Euclid Ave., Cleveland, Ohio.

The Architect's Green Book.—A.I.A. File No. 25-b-2. Attractively illustrated publication, recently issued, contains reproductions of expressions from numerous architects relative to the advantages and applications for Cabot's green gloss collopakes. 16 pp. 8½ x 11. Samuel Cabot, Inc., 141 Milk St., Boston, Mass.

Bryan Burners.—Catalog B6 illustrates and describes the model No. 5 burner designed to become a part of a complete Bryan unit of boiler and burner combined, as either straight oil burning or straight gas burning, or as a combination. Accessories, sections, tabular matter. 16 pp. 8½ x 11. Bryan Steam Corporation, Burner Division, Peru, Ind.

Metal Clad "St. Louis" Door Specifications.—Specification folder covering St. Louis metal clad freight elevator doors, equipped with sill leveling devices. Typical details. 4 pp. 8½ x 11. St. Louis Fire Door Co., 1134 So. 6th St., St. Louis, Mo.

Published by the same firm, "Presenting the Alsteel Door." Illustrated folder announcing and describing in detail this new type of automatic fire door for use in garages, boiler rooms, transformer rooms, pump or storage rooms, paint rooms, film vaults, machine rooms, stair and elevator shafts, pent houses, etc. Specifications, clearance schedule and drawings. 4 pp. 8½ x 11.

Combustioneer Automatic Coal Burners.—Descriptive folder covering the construction and operation of this new line of automatic stokers suitable for use in large and small buildings, apartments, hospitals, hotels, homes, factories, commercial buildings, etc. 4 pp. 8½ x 11. Combustioneer, Inc., Goshen, Ind.

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Position Wanted: Senior architectural draftsman, six years' experience on sketches, plans, elevations, details and full sizing. Experienced on hospital dormitories. George V. Cox, 96 Lake Street, Arlington, Mass.

Position Wanted: Young man, 18, High School graduate, twenty semesters drafting credit, also one year's training in the American school. Salary no object. J. E. Mason, 508 E. 6th Avenue, Gary, Indiana.

Position Wanted: Young man, 21, three years' High School, diploma in architectural drafting, certificate in surveying and plotting, three and a half years in engineering office as draftsman. Will consider any available opening along building and construction line. Will work "per gratis" first work to prove logical worth. Francis X. Lundy, 554 West 184th Street, New York, N. Y.

Position Wanted: Young man, 18, with little knowledge of architectural drawing. Willing to start as office boy. Michael Zoltan, 48 East 103rd St., New York.

Position Wanted: In architect's office, preferably in drafting room. Twenty years of age, high school graduate and am attending Mechanics Institute. Julius Allen, 810 Suburban Place, New York, N. Y.

Position Wanted: Executive—building trades field, with wide experience both practical and in office administration work, including the organization and handling of trade association activities, now completing contract of several years' duration, through consolidations and major changes in the industry with which he is now connected expects to be available shortly after January 1, 1932, change at earlier date might be arranged. Correspondence solicited from corporations interested in obtaining services of experienced and capable nationally-known man, never less than seven years in any one connection. Give rough outline of the business and class of work for which this announcement is of interest. Box No. 1223, care of PENCIL POINTS.

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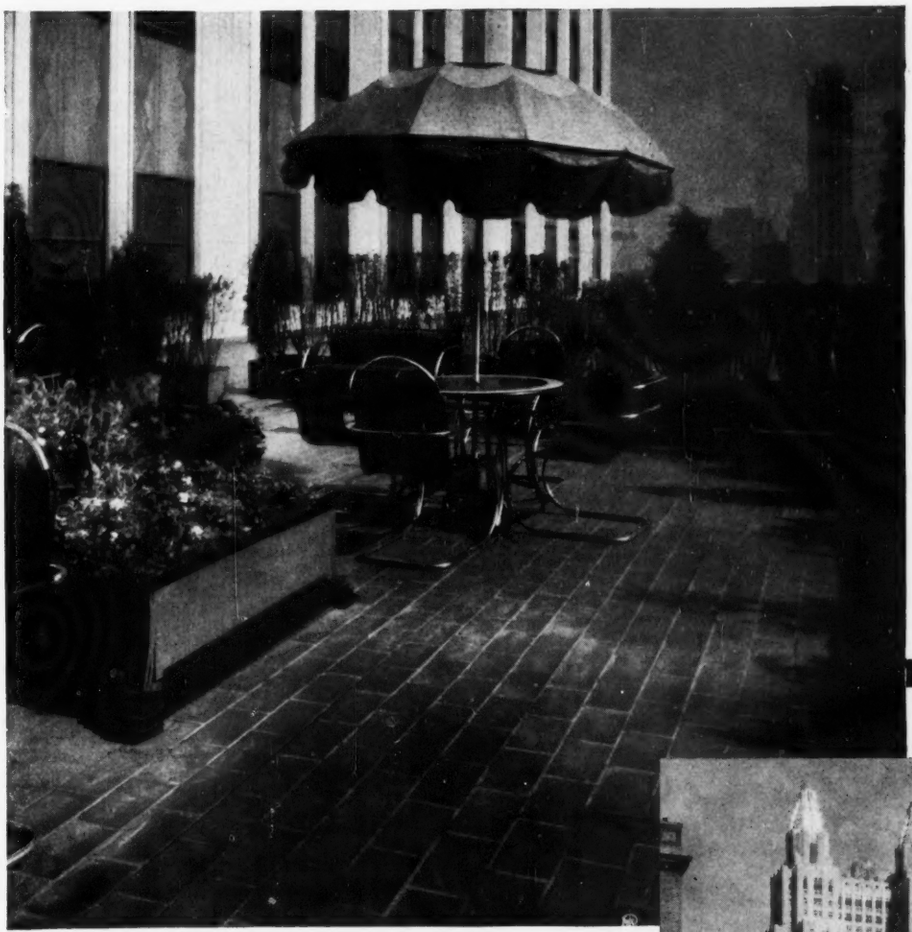

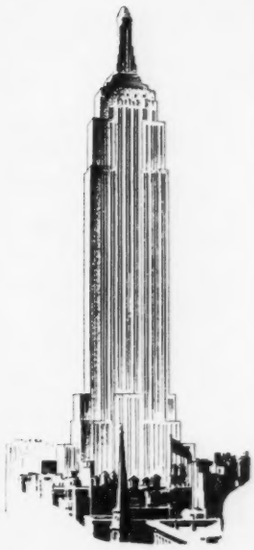

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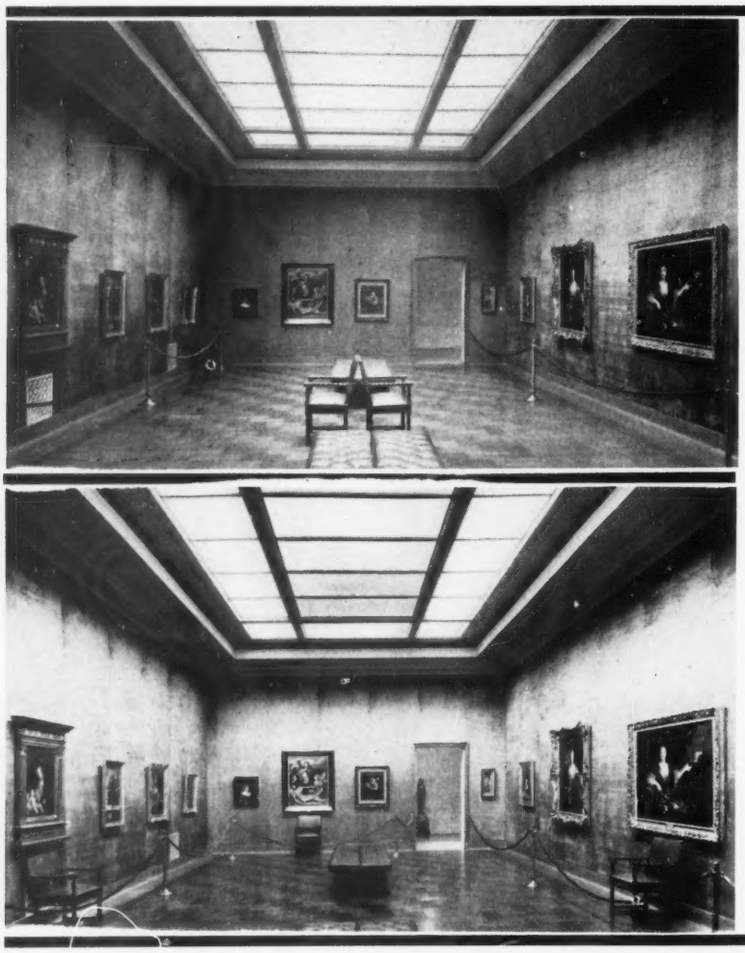

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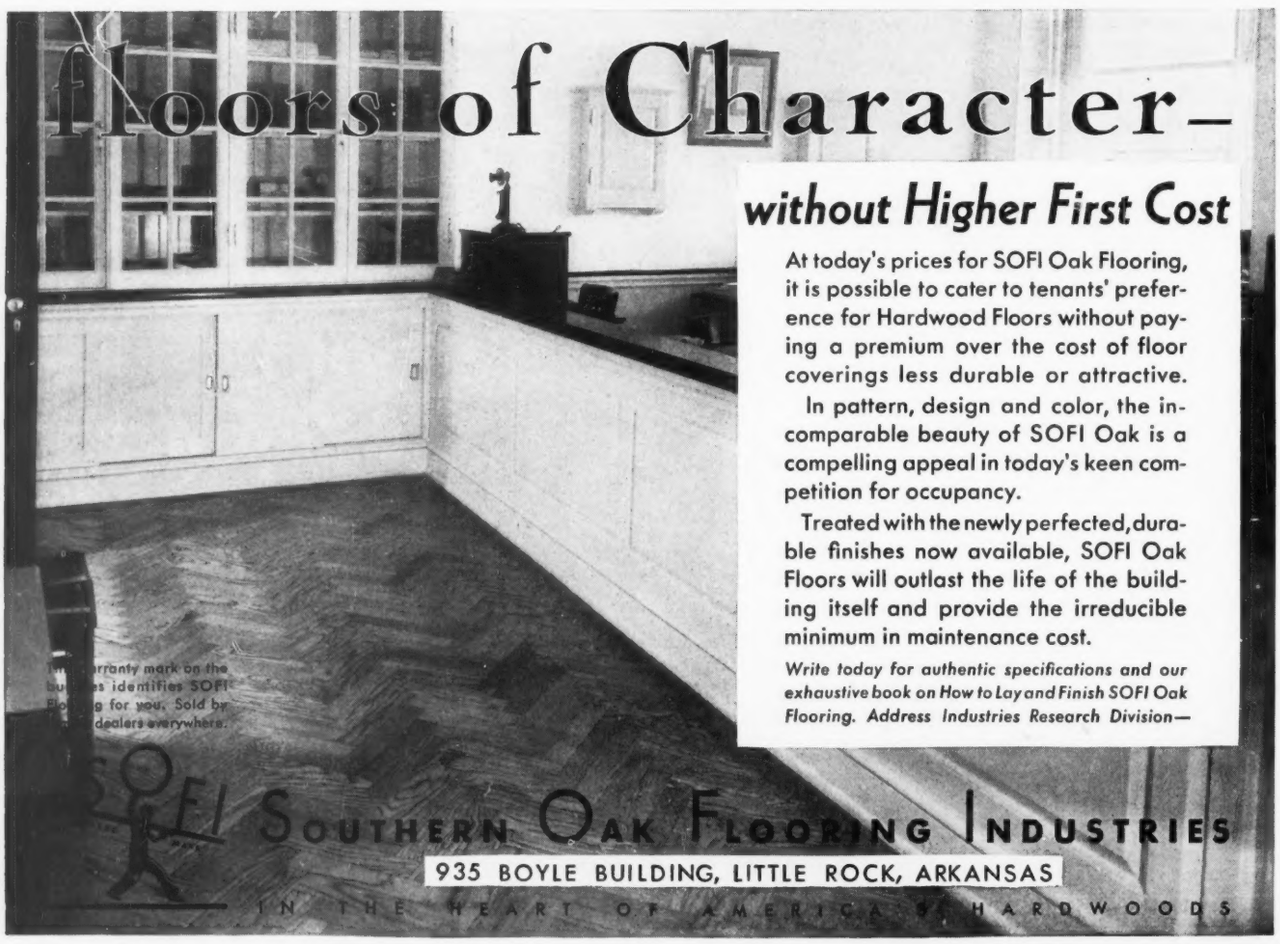
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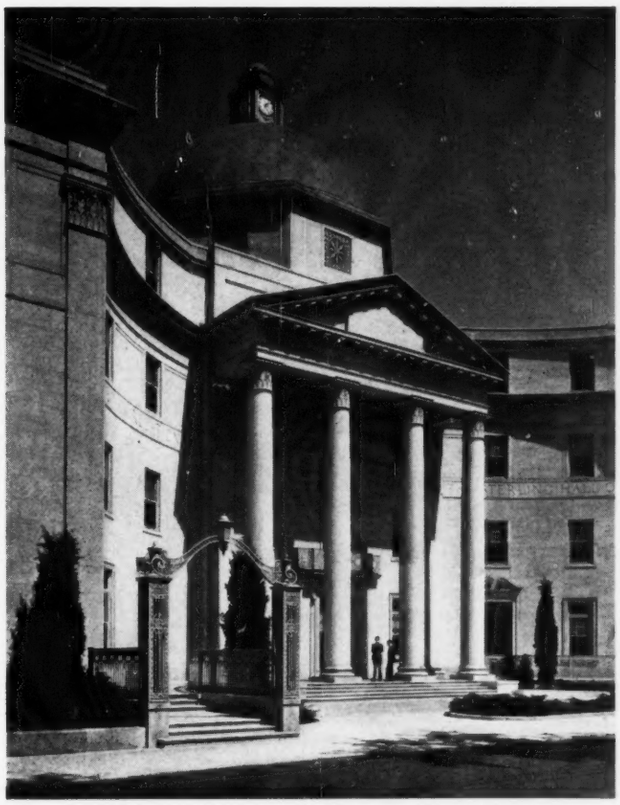

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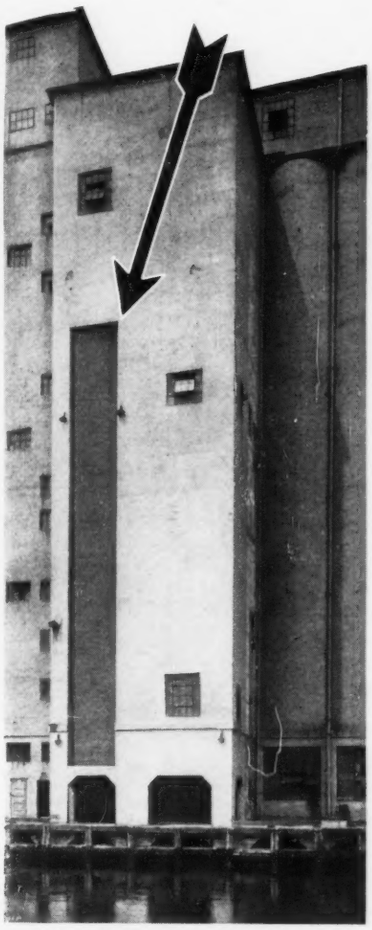

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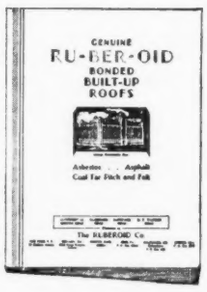

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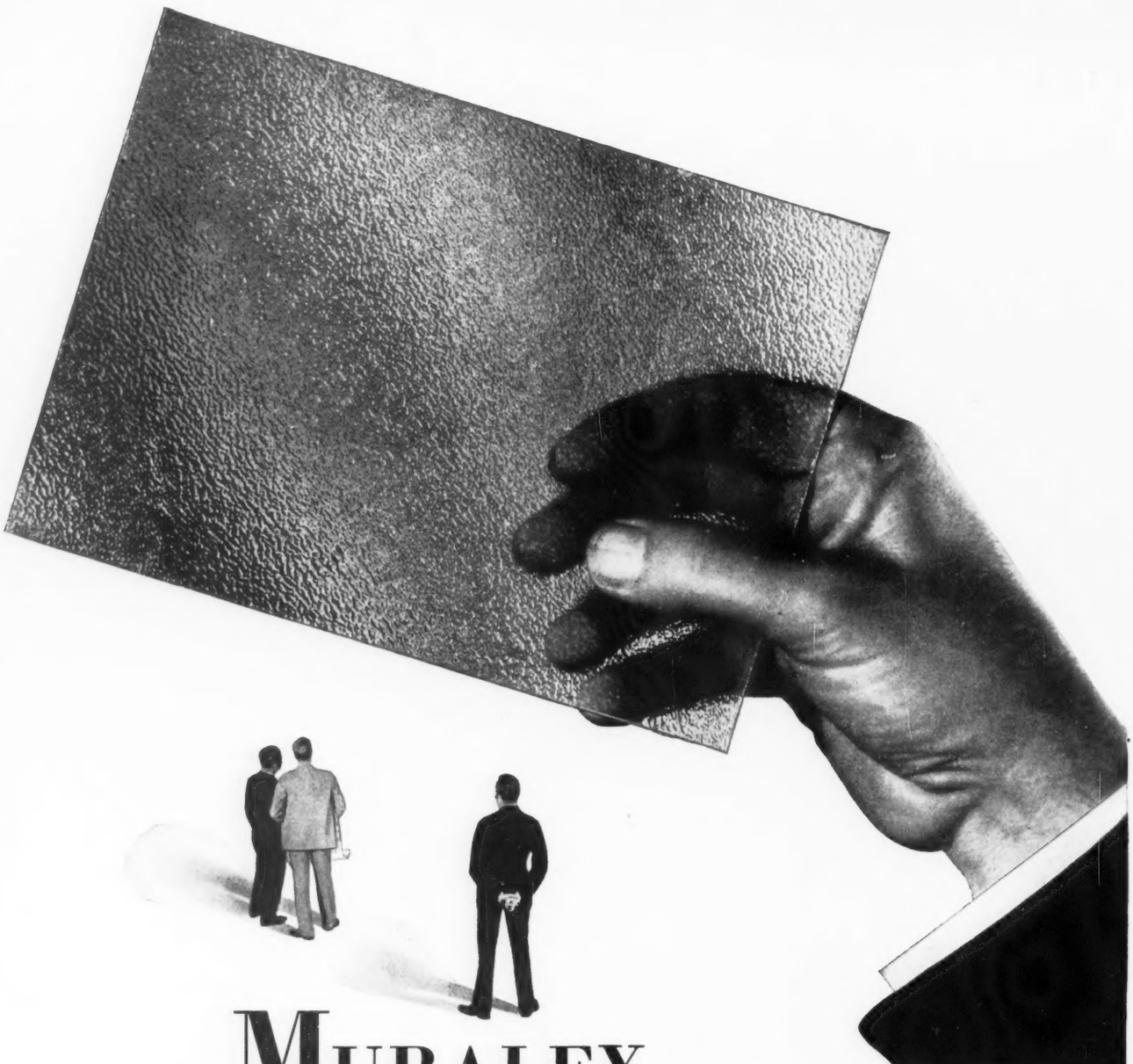

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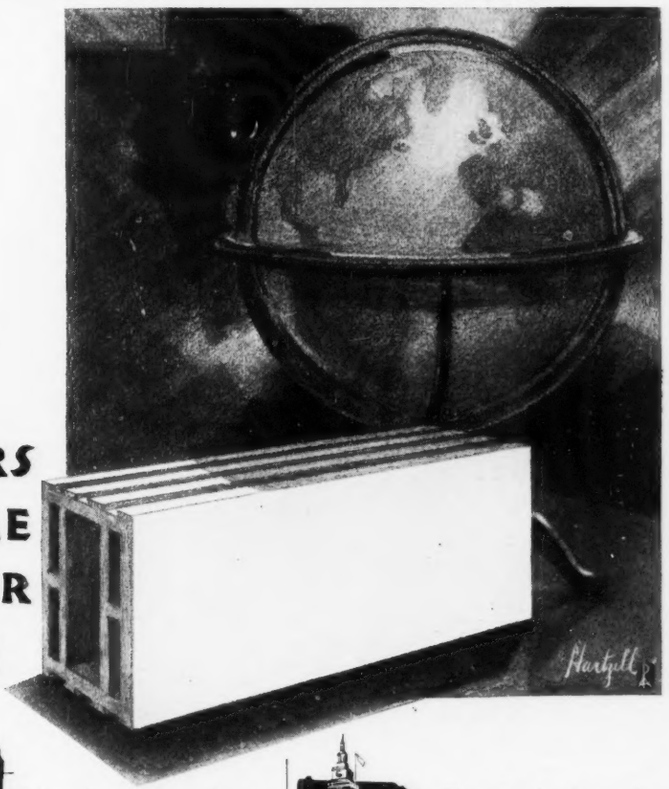

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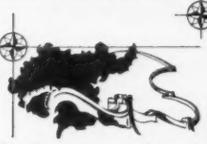
Ball and China clays from England Silica from Pennsylvania Tin Oxide from the Malay Archipelago Antimony Oxide from China  Alumina from Greenland Strontium Carbonate from Germany Gum Arabic from Africa Calcium Carbonate from the Chalk Cliffs of England Manganese Dioxide from the Caucasus Mountains Cobalt Oxide from the Belgian Congo Nickel Oxide from New Caledonia and Gum Tragacanth from Asia Minor. The world unites in providing the raw materials that, skilfully and scientifically utilized, confer on Natco Vitritile its permanence and beauty.

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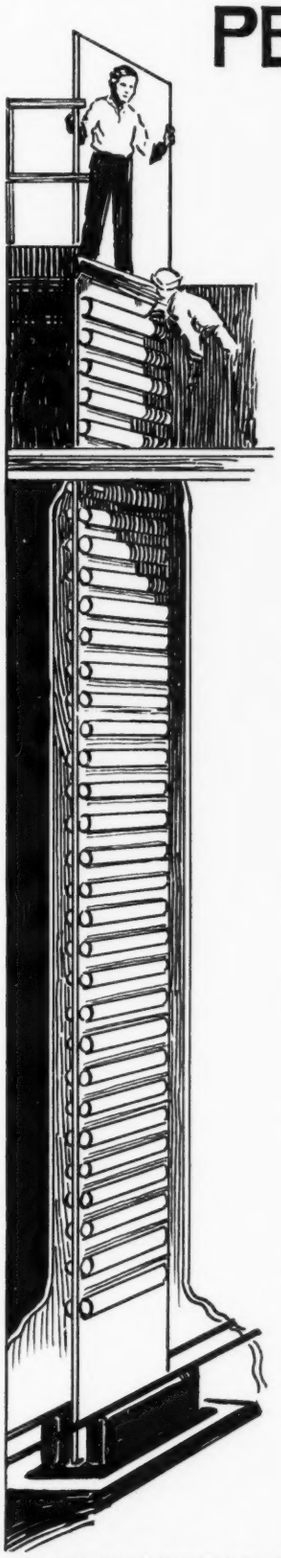

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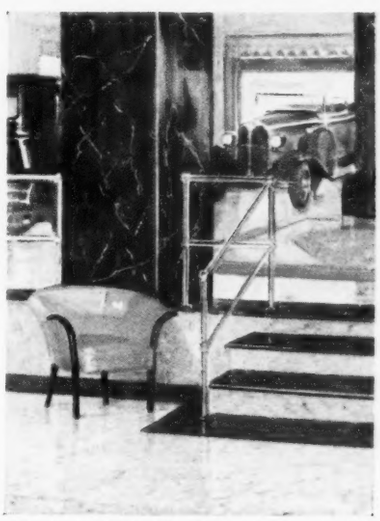

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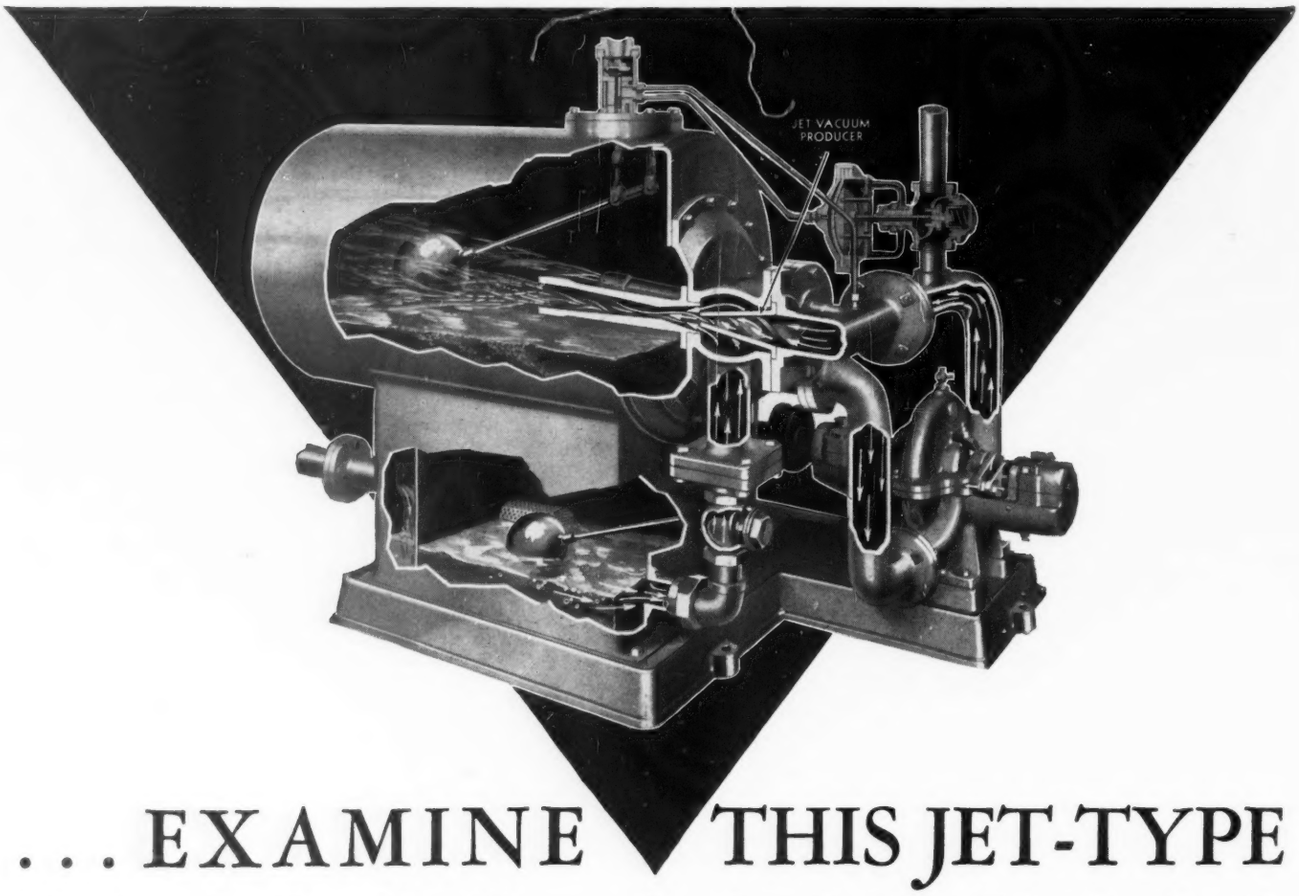

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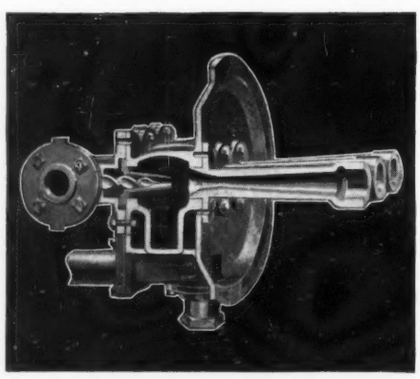

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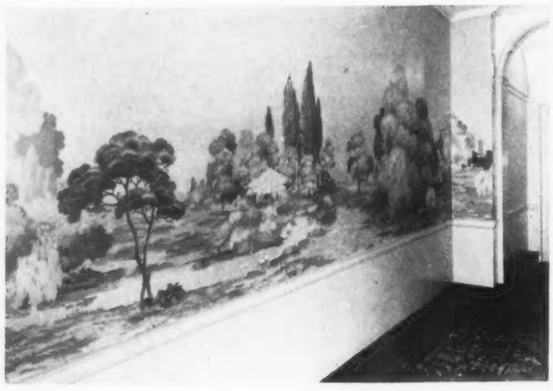

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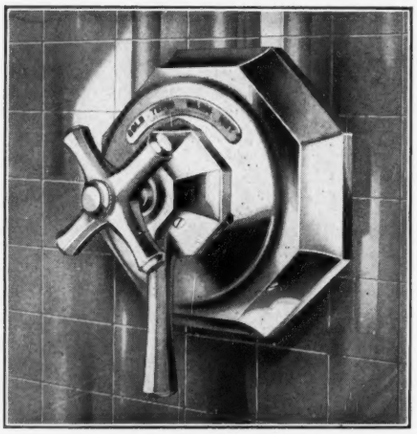

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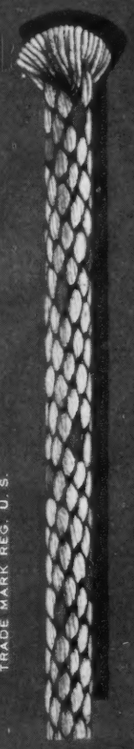

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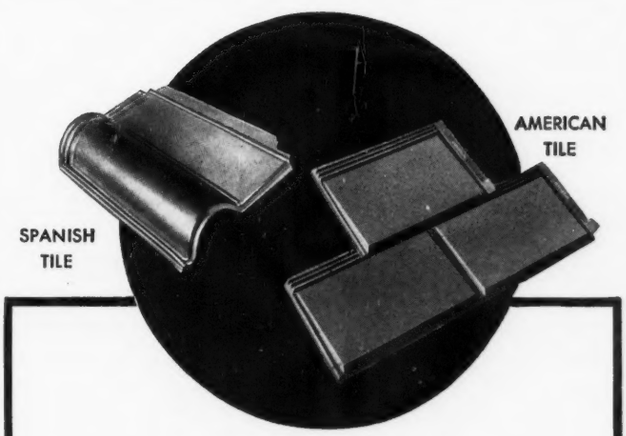

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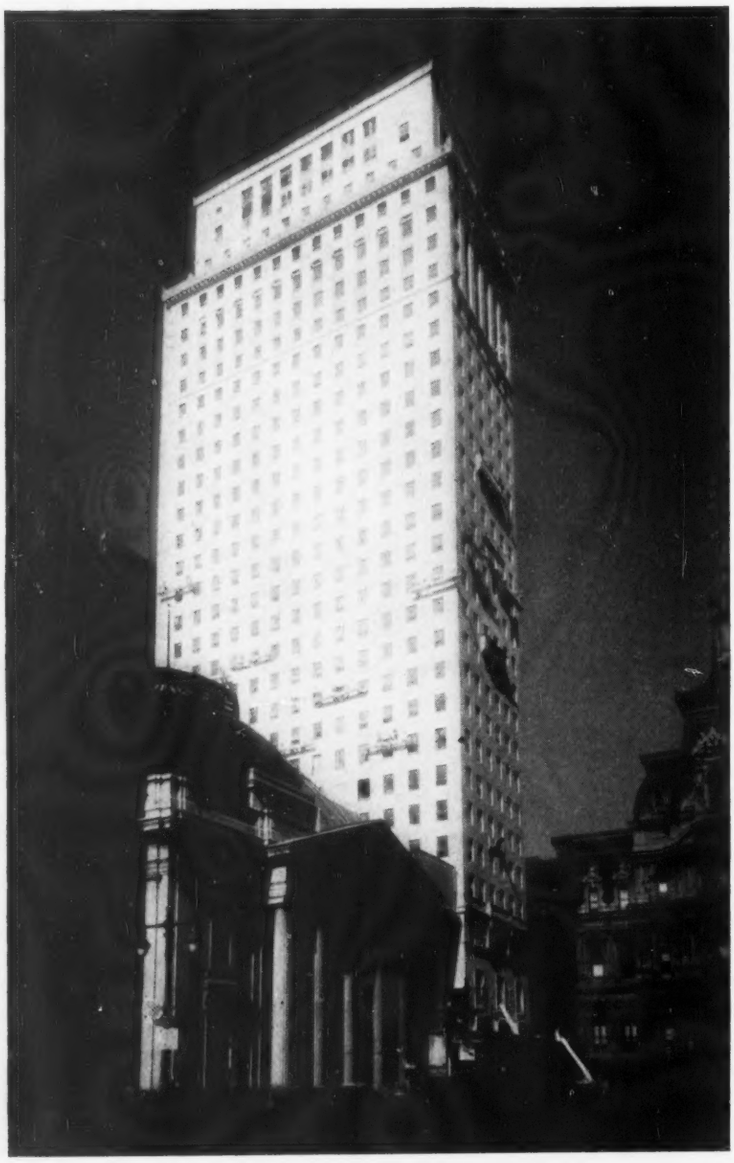

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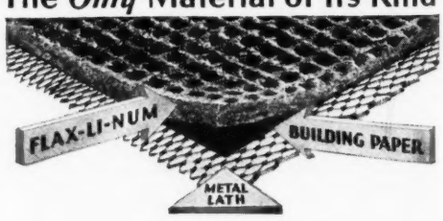

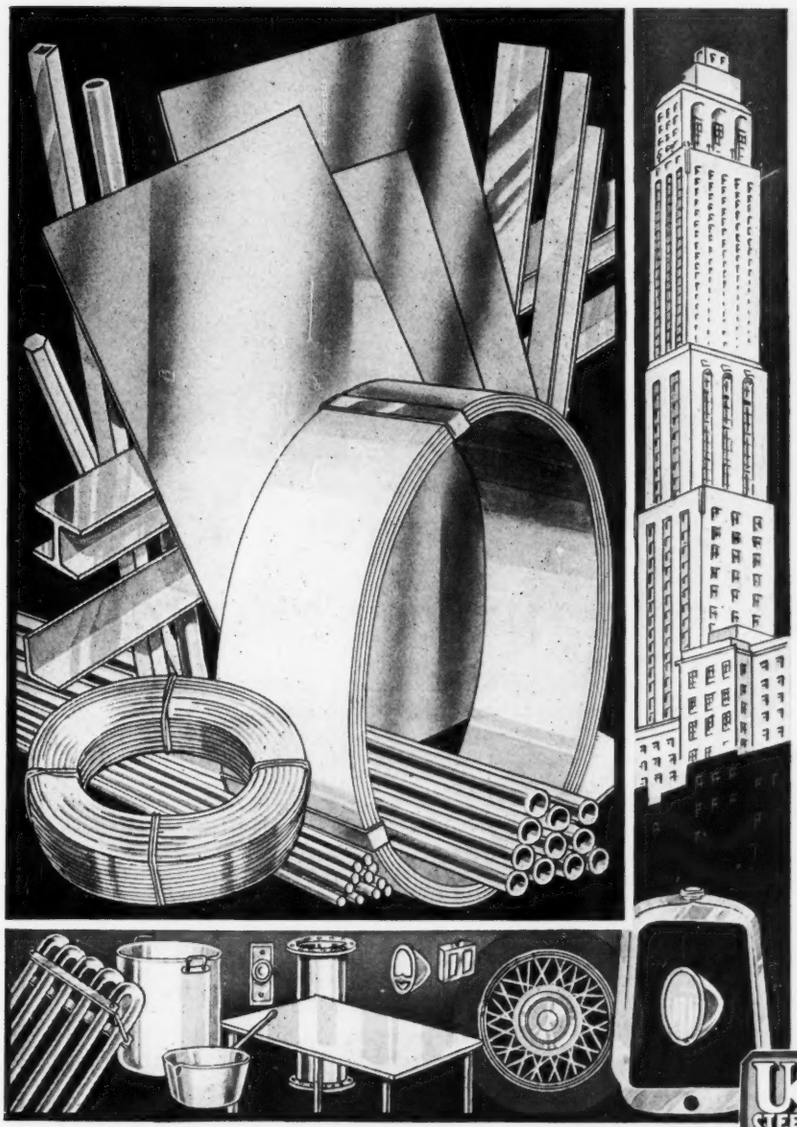

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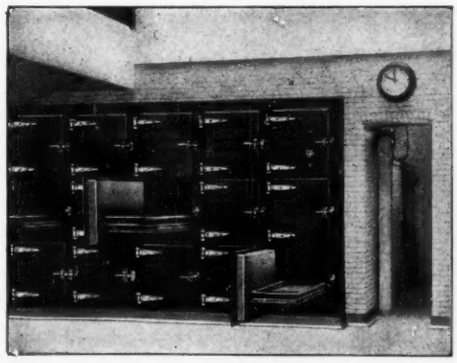

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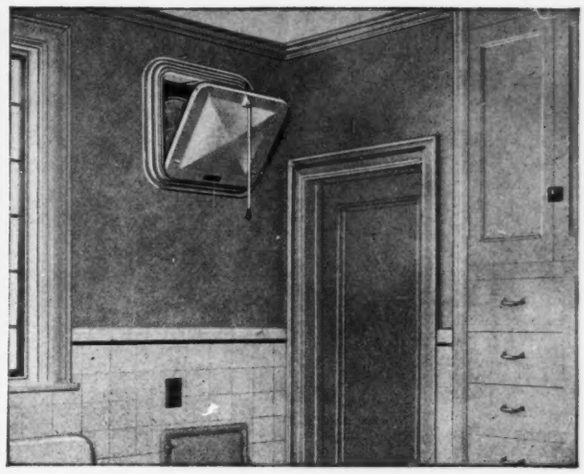

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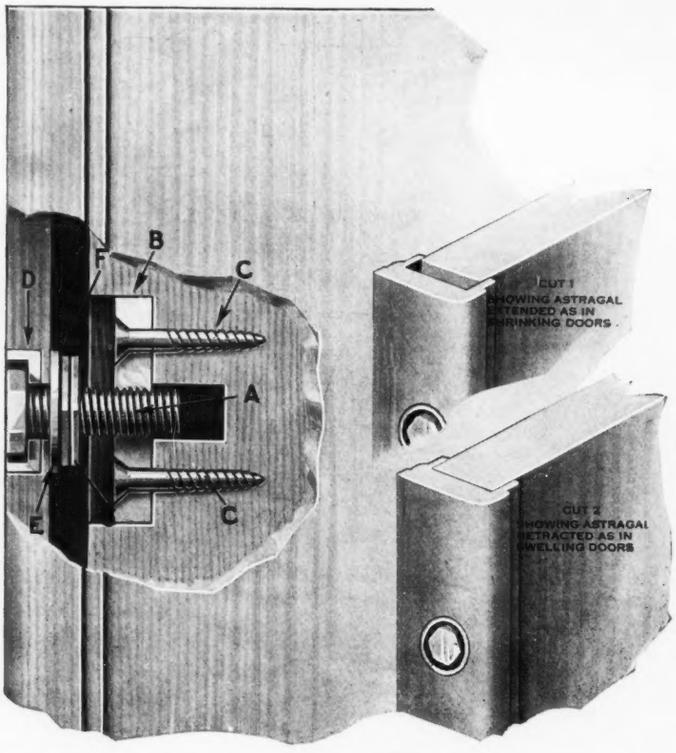

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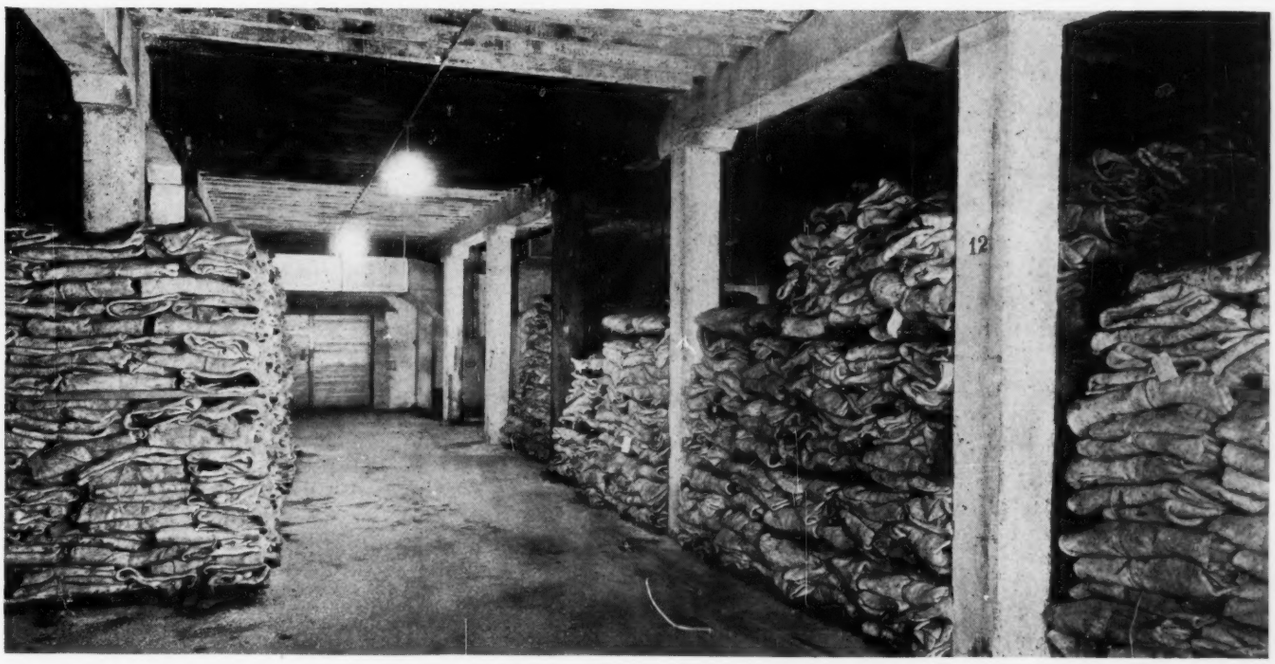

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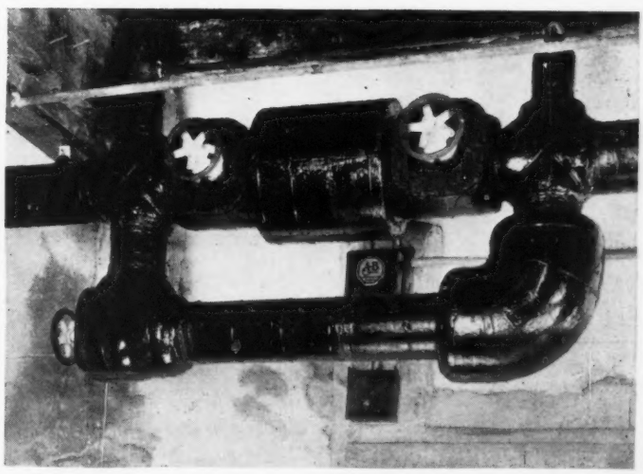

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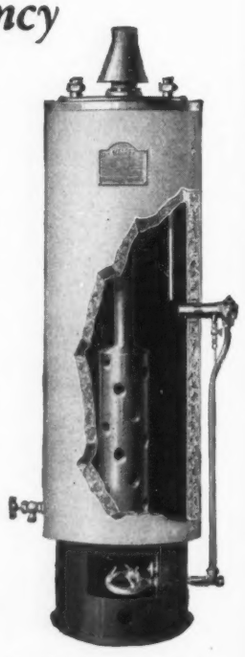

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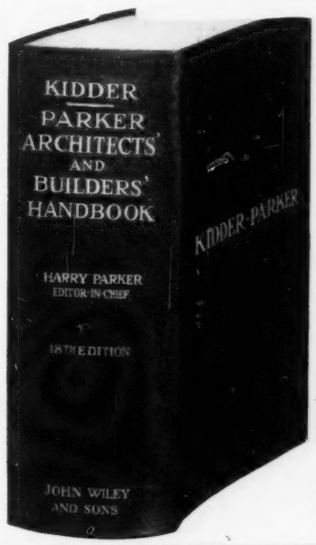

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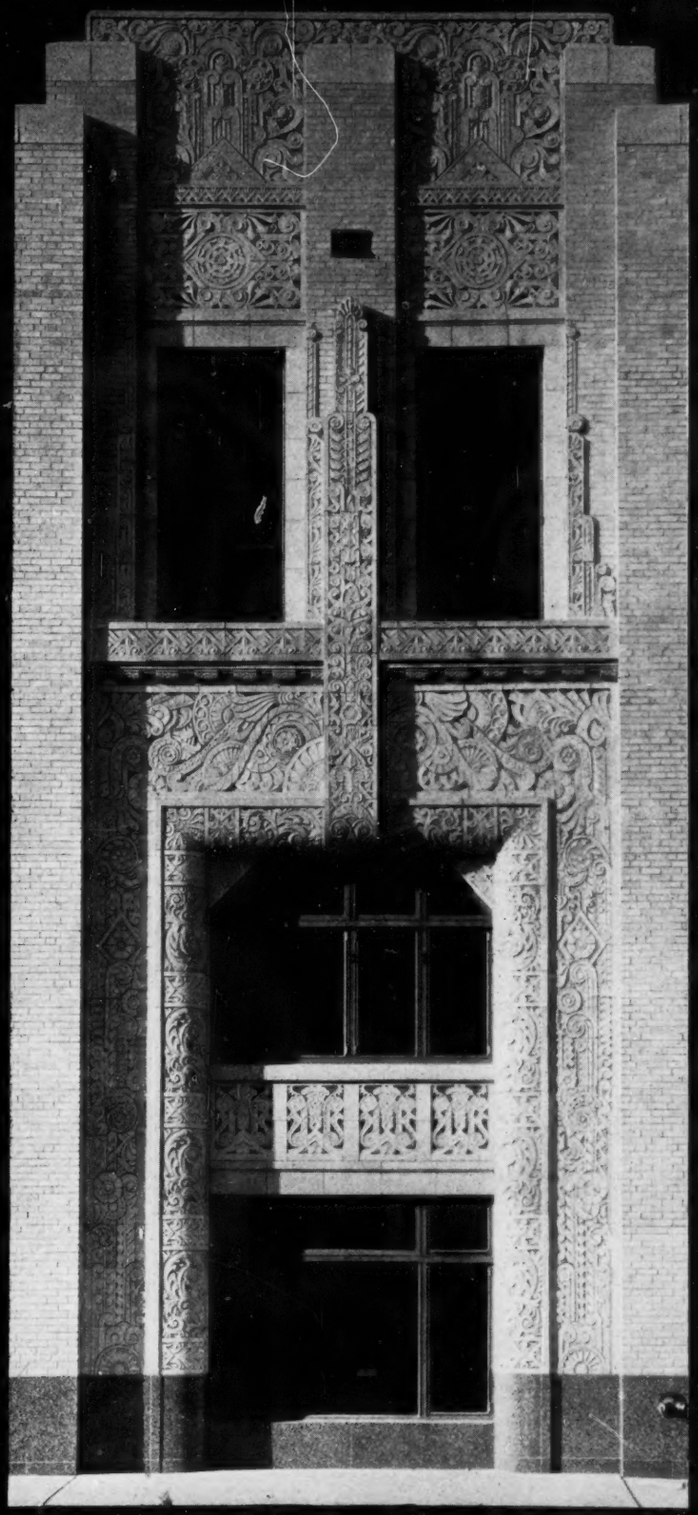

"Architecture is the art which so disposes and adorns the edifices raised by man for whatever use, that the sight of them contributes to his mental health, power and pleasure." In view of this historic definition, the question is raised whether ashlar architecture is artistic in any real sense. Do the artless products of the saw and the plane add to the stores of beauty in the world? Hoit, Price & Barnes, architects of the Southwestern Bell Telephone Building Kansas City, Missouri solved this problem by the logical use of Northwestern Terra Cotta for enrichment and color. The rich sparkling ornament shown on accompagning illustration is detail of bay.

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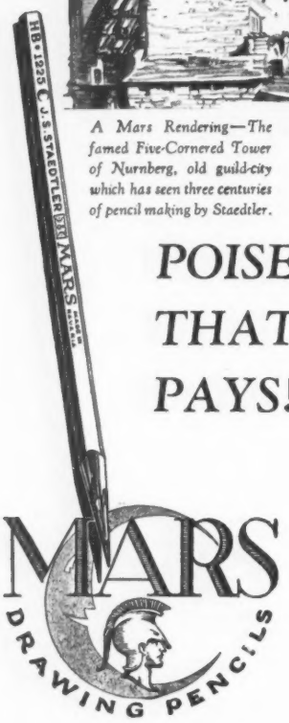

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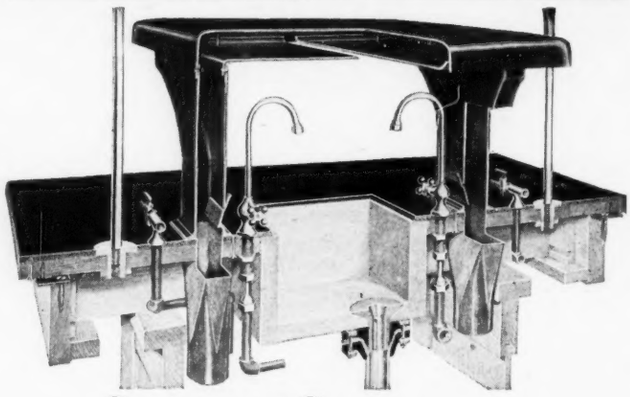

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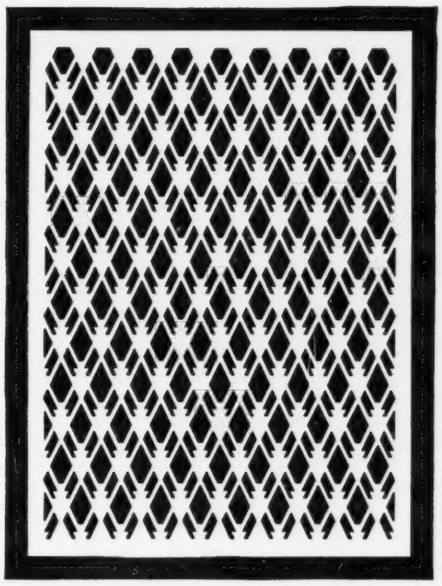

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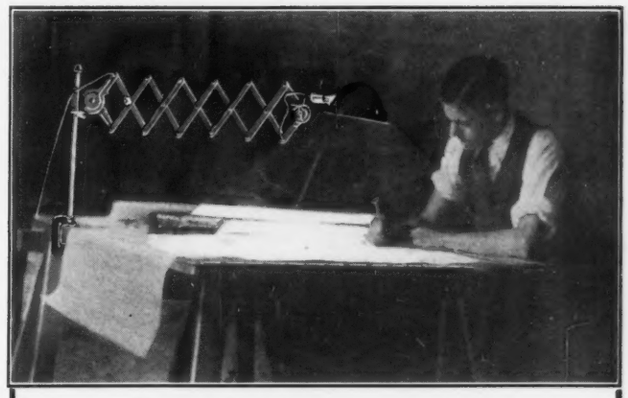

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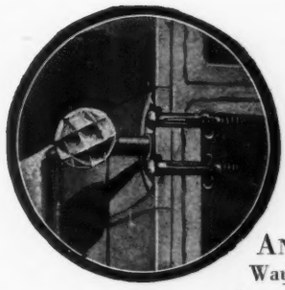

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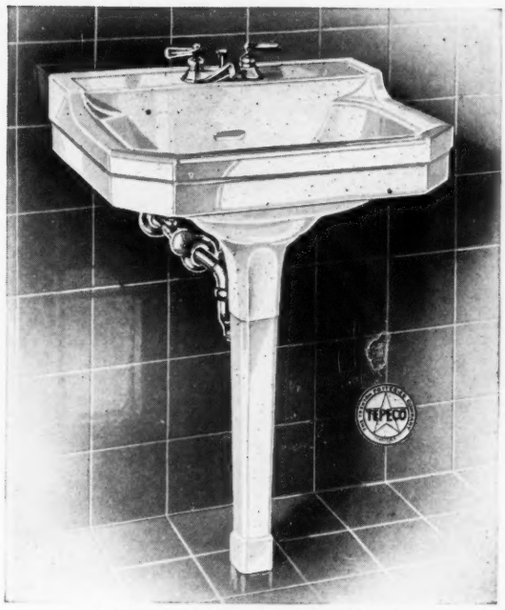

THE CARLTON LAVATORY
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With and For Our Advertisers

Announcements of New Materials and Equipment, Changes in Personnel, etc.

YALE DEVELOPS A NEW CONCEALED DOOR CLOSER

The newest development for The Yale & Towne Mfg. Co., of Stamford, Conn., is a concealed door closer. This, it is announced, is the result of years of research and experiment in an effort to supply the long and insistent demand of architects for a door closer that would be invisible and hence not interfere with the attractiveness of any surroundings.

It is reported that the new Yale concealed door closer possesses all of the efficiency and durability of the conventional type of door closer, yet it is virtually entirely concealed from view. When the door is open, the slender arm that controls the door is, of course, visible but in no way unsightly.

The new Yale concealed door closer is mortised into the top rail of the door like a lock. It is particularly adapted to metal doors which would be prepared at the factory to receive the closer. However, it can be applied to wood doors over 1¾ in. thick but this requires the use of side plates. On wood doors of thickness of two inches, or more, side plates are not necessary.

The mechanical construction of the closer is extremely simple. Two compression springs apply their power to the spindle by means of two racks, one at each end of the closer. These racks are so arranged that the turning force is balanced, thus reducing the side thrust on the shaft bearings, and producing a high rate of efficiency. The closer employs a hydraulic checking cylinder. The piston is operated by a rack and pinion which gives long checking, enabling the effective control of doors that are subjected to strong draughts. A high grade mineral oil is used as a checking medium, assuring constant lubrication.

There are two regulating screws, conveniently located on the top of the closer, one to control the door through the main closing swing and the other to control it at the latch. One outstanding feature of the new Yale concealed door closer is the fact that it permits the door to be opened the full 180 degrees, flat back against the wall.

THE NEW TRANE CONVECTION HUMIDIFIER

The Trane Co., LaCrosse, Wis., has introduced a new humidifier, known as the Trane convection humidifier suitable for use in homes or offices heated by steam or hot water.

It is available in two sizes—one for installations of 15,000 cubic feet, which humidifies the air with 7 to 10 gallons of water daily; and one for larger installations, which humidifies the air with 15 to 20 gallons daily. Humidity is by air absorption of water only. There are no sprays or jets to induce more vapor into the room than the air can contain.

TRUSCON PRESTO STEEL FLOORS

A new and improved type of floor to be used over Truscon "O-T" open truss steel joists has just been developed by the Truscon Steel Co., Youngstown, Ohio.

It consists of a solid steel decking in which ribs have been formed to resist deflection between the steel joists. The solid steel decking gives the workmen a substantial floor upon which to work prior to the pouring of a concrete or other type of surfacting. The top surface of "Presto" floor units is punched to provide rectangular extrusions which act as a positive bond between the centering and the concrete thus forming one solid unit. Truscon "Presto" floors are manufactured in units approximately 8″ wide and of any length desired. The ribs, that are formed to provide stiffness to the product, run lengthwise and thus span crosswise over the supporting steel joists. The ribs are shaped like miniature I-beams and, being 1″ in depth, are said to be of sufficient strength to carry the weight of any ordinary depth of concrete required for the slab as well as any ordinary construction loads to which the centering may be subjected during erection of the building.

Truscon "Presto" floor units are made of 24-gage steel and are laid like tongue-and-grooved boards. They are easily cut in the field where openings are required by construction conditions.

GENERAL ELECTRIC ANNOUNCES NEW LINE OF ELECTRIC AIR HEATERS

A line of horizontal electric air heaters for industrial applications is announced by the General Electric Company, Schenectady, N. Y. Five ratings are listed: 1,000 watts at 115 volts; and 1,000, 2,000, 3,000, and 4,500 watts at 230 volts.

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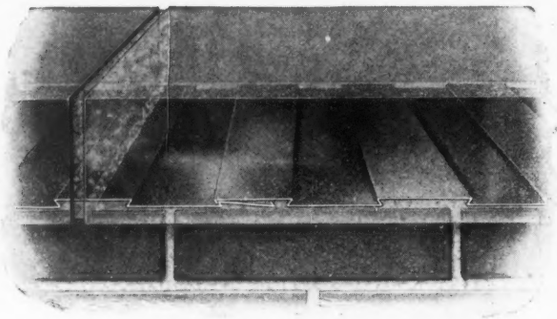
NEW DURIRON SALES OFFICES AND REPRESENTATIVES

The Duriron Company, Dayton, Ohio, has appointed E. J. Healy in Washington, D. C., as its representative for the building equipment department. Mr. Healy previously represented the company in Des Moines for several years and will now devote practically all of his time to the various planning bureaus of the Government.

The Industrial Equipment Co., formerly representing the company in the Buffalo territory, has been dissolved. The Duriron Company is now opening a direct sales office in Buffalo at 220 Delaware Ave., under the management of Guy A. Baker, who comes from the general office at Dayton.

H. P. Rodgers has been made representative for the Cleveland territory with offices at 528 Leader Building.



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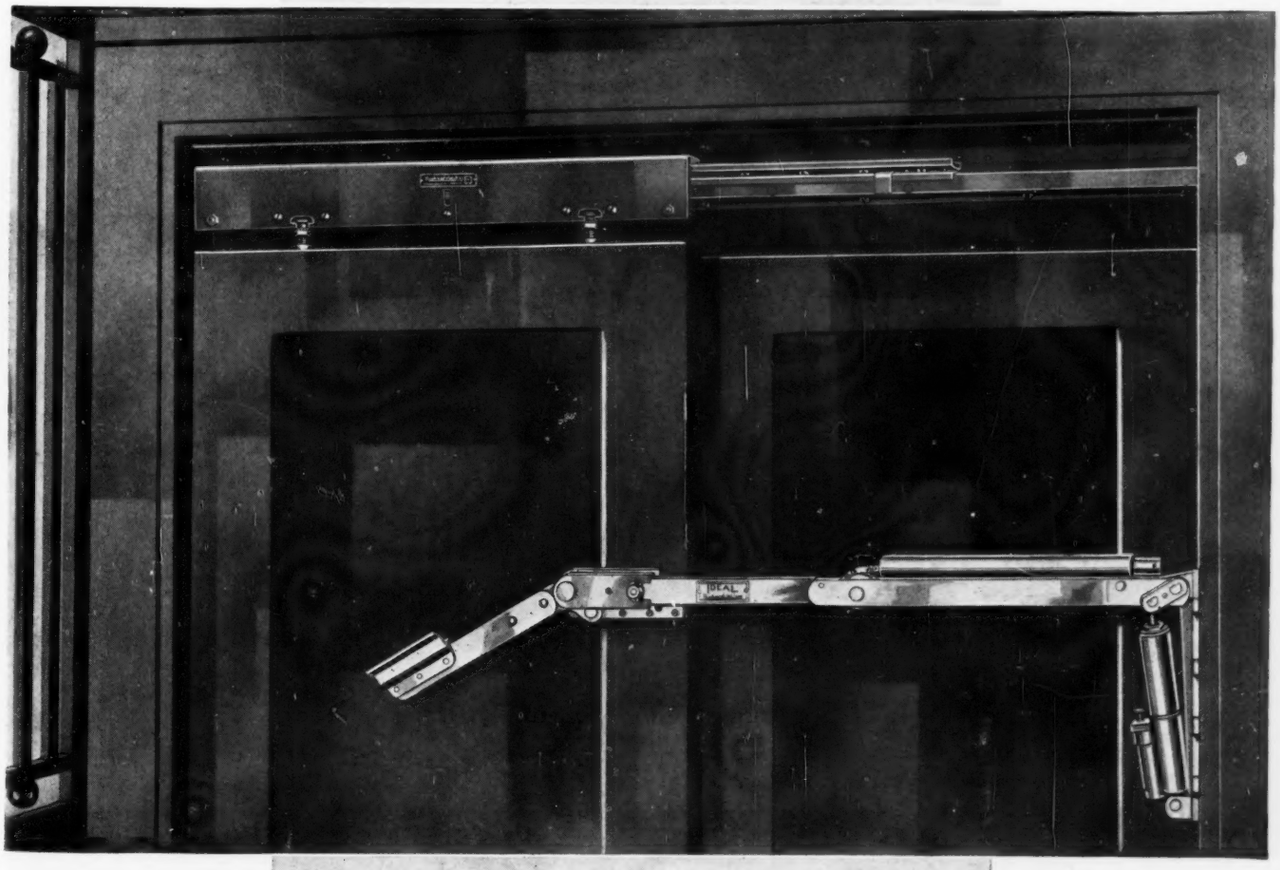

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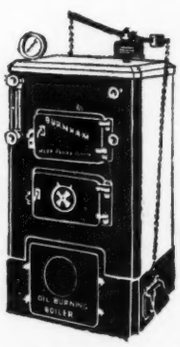

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